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I

ARE COLLEGE ENTRANCE REQUIREMENTS TOO GREAT IN QUANTITY? ¹

Are college entrance requirements too great in quantity? I answer the question unhesitatingly in the affirmative, and believe that I can maintain the position. An appeal to the experience of almost any teacher who is preparing boys or girls for college will meet with an unqualified response, as has been proved by actual trial, but what I should like to do is to go beyond the simple expression of personal judgment, and to rest the case on something stronger than mere cumulative opinion.

In getting at the facts, the first point to be settled is as to what may be considered the standard of college entrance so far as quantity is concerned. Is there any definite standard? On the one hand we have the requirements of such a college as Harvard, for instance. On the other we have the small feeble institution whose requirements on paper amount to only about half as much, and sometimes in reality to less even than that. A certain schoolmaster, advocating the theory that every boy, whose family could afford it, should go to college, said that for the weaklings he knew of a college where practically anyone would be taken, provided he could show that he was a gentleman. Another schoolmaster in the group responded that he knew of one where even that requirement was not in-

¹ A paper read before The Schoolmasters' Association of New York and vicinity, November 11, 1905.

sisted on. In the course of the investigation of this subject there came under my observation the catalog of a college bearing a highly honored name, one of the very oldest in the country, and one whose record of achievement entitles it to be regarded with respect. The requirements for admission are interesting. They consist of English, algebra to, not thru, quadratics, three books of geometry, and one other subject, choice being given the candidate between physics, history, Latin, Greek, French, and German. That is all; three subjects only, English, mathematics, and one other. The specifications in Latin are: grammar, composition, three books of Cæsar, four orations of Cicero, and two books of Virgil. In Greek they are: grammar, composition, and the Anabasis. Homer is gravely said to be "undesirable for preparatory work." It is needless to state that this paper is not concerned with entrance requirements of this grade, and yet many of our fathers entered college on just such a basis as this.

A boy could enter Washington and Lee two or three years before he would dare apply for admission to Yale or Harvard, and there are all grades between the two extremes. What standard shall we take as the basis of our discussion? The answer is simple. Our work is conditioned by the heaviest requirements. Our boys are going to Harvard, Yale, and Princeton, and they must be prepared to meet the requirements of those institutions. It is not much relief to a boy preparing to enter Harvard to know that he could get into Cornell or Williams more easily.

In order to make clear the point at which I am aiming it has seemed wise to reduce the requirements of several of the colleges in which we are most interested to a numerical basis, that is, to a system of points such as is employed at Harvard and Columbia. I have adopted the Columbia scale as being the simplest, and also as more likely to be familiar to most of us. On this scale the English required for entrance counts 3 points, Latin 4, Greek 3, elementary German and French 2 each, algebra and plane geometry together 3, history 2, physics 1, and so on. Fifteen points are required to enter Columbia.

Calculated on the Columbia scale, the entrance requirements of Princeton amount to something over 16 points. The Yale requirements also foot up the same, where Greek is offered. I say something *over* 16 points, for Princeton calls for Sallust in Latin, and logarithms in algebra, and Yale demands the *Bucolics* in Virgil. Where the substitute for Greek is chosen at Yale, they amount to 17 points. The Harvard requirements are more difficult to reduce to the Columbia scale, because the language requirements are so largely of the nature of sight translation. A bright boy with a facility for guessing at the probable meaning and the ability to make a good showing with limited knowledge, can sometimes pass the Harvard Latin and Greek examinations with less preparation than would be necessary for the other colleges, but in general, I fancy that the almost universal opinion is that honest preparation for the Harvard requirements in Latin and Greek calls for more work than the corresponding requirements at Yale, Princeton, and Columbia. Assuming, however, that these requirements are equivalent, Harvard demands of the student either 17 or 18 points. I will say 17, tho I am inclined to think that 18 is nearer the mark. There is also a considerable group of colleges—including by far the largest number—the requirements in which are one point less than those of Columbia. This group includes such colleges as Cornell, Amherst, Williams, and many others. The University of Pennsylvania requirements range from 13 to 15 points, according to the subjects chosen, and in the same way Brown calls for either 15 or 16 points.

To avoid ambiguity, it may be well to state the matter in still another way. For the sake of simplicity we will imagine a student who offers Greek for entrance, altho the situation will be substantially unchanged, in most colleges, if he offers an alternative for Greek. To enter Cornell or Amherst he would have to pass in English, algebra, plane geometry, Latin, Greek, and ancient history—14 points. To enter Columbia he would need one additional point, which might be made up in any one of a number of different ways. To enter Princeton or Yale, he would have to add German or French,

and if he goes to Harvard he will have to pile physics on to the load.

The Harvard requirements, then, are greatest in quantity, Princeton and Yale coming next, and most of the others falling somewhat lower. The difference between the highest and lowest of the requirements under consideration is 3 or 4 points a difference amounting to from 20 to 25 per cent. of the whole. A difference of 20 to 25 per cent means nearly, if not quite, a year's work. If the 14 point requirement of the majority of colleges is as much as can be reasonably demanded of entering students, then the 16, 17, or 18 points of Princeton, Yale, and Harvard are unreasonable. The thesis that I propose to maintain is a double one: first, that the quantity of work called for by such colleges as Princeton and Yale, represented by 16 points, is, if honestly lived up to and thoroly covered—note the qualification—more than can be wisely and reasonably exacted of the entering freshman; second, that if a smaller quantity of work is demanded, a higher quality can be secured. That means that the colleges will secure better prepared students if their requirements are less in quantity.

From the facts as stated it is clear that if students are to be prepared in our schools to enter such colleges as Yale, Princeton, and Brown—and the same thing holds true of Smith and Vassar—the courses of those schools must cover at least 16 points of work. Let us analyze these 16 points, and see just what this statement means. I take the Princeton and Yale requirements as a basis, because they allow fewer options than most of the other colleges, and therefore are simpler to discuss. Columbia states that a point or "unit is a course of five periods weekly thruout an academic year of the preparatory school." That would mean that 80 periods of work are needed to meet the requirements as they stand—20 periods a week for four years, or 16 periods for five years.

Let us take up the subjects in detail. English counts 3 points, equivalent to 15 periods. Five periods a week for three years, or 4 for four years, are amply sufficient to meet the college requirement, provided the pupils have a proper basis and foundation on which to work. But the school has to

overcome the influence of the street, the playground, the home. We have to teach many of our pupils, literally, to speak and to read. Many schools feel that they imperatively need at least five periods a week in English thru the entire course, and many more, that are devoting less to the subject, find that they have to give so much effort to the details of the college requirement that they lack the time for the necessary training of their pupils in fundamentals. Fifteen periods is enough to meet the college requirements in English, but there is serious question as to whether it is enough for all the work needed in English in the schools.

Algebra and plane geometry together count 3 points, 15 periods. This appears to be fair, tho hardly a liberal allowance. Two years, with five periods a week, should be sufficient for algebra, and one year for geometry. Let me call attention in passing, however, to a few minor points. The mathematicians have lately discovered, or rediscovered, the graph, a mysterious thing to some of us who used to think that we knew a little about algebra, but apparently very important, for the College Board lays considerable stress on it. Yale and Princeton do not appear to have discovered it yet, but Princeton insists that logarithms, permutations and combinations, and some other topics are necessary to the salvation of the sub-freshman, and Yale calls for special work in mensuration as applied to geometry. As we have to meet all requirements in our classes, this lack of uniformity still further increases the load laid upon the schools.

Another point to be noted is that in the course of the last ten years or so the difficulty of the algebra examinations has increased decidedly, so that it is necessary to go more deeply into the various topics, and text-books, that a few years ago were amply sufficient, are now entirely inadequate. In geometry, also, there has been a marked increase in difficulty due to the greater emphasis laid upon original work. The ability to solve original problems is, of course, a better proof of geometrical mastery than the mere reproduction of so-called "book propositions." It is a better ideal at which to aim, but it is, for a large proportion of students, at least, distinctly more

difficult of attainment, and I think that it is a fair question whether we are not expecting too much original work from boys and girls with non-mathematical minds. Still, we are concerned now only with the quantity of college requirements, and my quarrel with the geometry requirement is that original work has been added without any reduction of book work. The theory, of course, is that the pupil who can solve "originals" does not need to go thru the full catalog of book propositions. The theory, however, does not fully conform to the facts. There is a certain body of propositions forming a logical, connected development of the subject, and constituting what may be called the elements of geometry. They are fundamental, and in the older text-books they were the only ones given. Modern text-books have added largely to the number, propositions that are interesting and sometimes valuable, but that are distinctly not essential. Their solution often depends on some special device or turn of reasoning that would not occur to an ordinary student, certainly not in the stress of an examination, and they must therefore be studied and learned as "book work." I am told that propositions of this latter class amount to approximately one-half of the number contained in modern text-books. In other words, the old requirement of plane geometry has not only been increased almost 100 per cent. by the addition of non-essential propositions, but also by the requirement of original work. Harvard, which has led the way in the demand for original work, issues a syllabus of propositions which it regards as essential, and confines its demands for book work strictly to these. This is a rational plan, and is to be commended, but the other colleges call for the full number of propositions contained in the modern text-books, and have also decidedly increased their demands for original work. The wording of the geometry requirement in the college catalogs remains substantially unchanged, but the quantity of work called for by that requirement has been substantially enlarged.

Latin is rated as 4 points—20 periods—and this I have no hesitation in condemning as inadequate. I know that the work is frequently done in this time, just as I know that a bright

boy has sometimes covered the whole ground in three years or even less, but the fact remains that for the majority of pupils the time is too short to do the work properly. Almost every school that I know of that has a four year Latin course, feels, I think, that the work has to be done under high pressure, and a considerable number of students of fair ability and good working power are unable to maintain the pace, and fall by the wayside. Latin is one of our best-taught subjects, but I fancy that in the majority of schools it is found to be the subject in which the pressure is greatest.

Greek is allowed 3 points or 15 periods, and this is an adequate allotment. Greek is not an easy subject, but it should be covered comfortably in the time allowed and can be done in less.

The modern language, whether German or French, is assigned 10 periods, and this again may be regarded as a fair, tho not a generous allowance. That is, it is time enough in which to meet the requirement, but a modern language above all things ought to be studied in a somewhat leisurely fashion, with plenty of opportunity for practice, for drill, and for assimilation.

Ancient history is rated as 1 point, and 5 periods is a satisfactory allowance. So far, I have spoken only of the subjects included in the classical requirements at Yale and Princeton, but when we pass to the subjects accepted by these and other colleges as alternatives for Greek, we find that the same thing holds true. Five periods, for example, is merely a fair allowance for solid geometry and trigonometry. It was a fair allowance also for physics a few years ago, but I question whether it is sufficient now, since the mathematical side has been so strongly emphasized. The modern school course in physics may be admirably adapted to the pupil who intends to specialize in the subject, but for the general student it is by no means the best course that could be planned, and it is too severe to be completed thoroly in one year, especially if any adequate treatment of the descriptive side of the subject is attempted.

From this analysis of the requirements, it will be seen, I

think, that every one of the subjects can be covered in the time allotted, but that in the majority of them the allotment is scanty rather than generous; that is, to complete the work in the time assigned, high pressure is necessary. Possibly it would be true to say that almost any one of the subjects could be covered comfortably in the time specified, provided too great demands were not made on the pupil's time and strength in other directions. It makes a great difference whether a pupil can give two hours or only one to the preparation of a lesson, and every class teacher knows that he can do better work and cover more ground with his classes, if the demands in other directions are not too great. It makes a difference, also, whether the pupil's attention and energy are concentrated on three or four subjects, or scattered over seven or eight. The trouble is that our requirements have been shaped by specialists whose interest has been in the subject rather than in the student, and frequently, it would appear, the demands made in other directions have not been fully realized.

We have seen that the 16 point requirement which we have been considering is based on the expectation of 80 periods of high pressure work, that is, 20 periods a week for four years. Now the question of how many recitations per week a student can wisely carry is largely a local issue. It depends on a great variety of circumstances, and the number varies in different schools. In general, however, where the number of recitations is larger than normal, the amount of preparation expected is smaller, and the ground covered in each recitation is less. It means that more of the work is done in class and less outside, not that more work is done in the same time. A school with 25 recitations a week would have to devote proportionately more periods to algebra or Greek than a school with 20 recitations a week, so that the argument which fits one scale will apply with equal force, tho with changed figures, to the other.

The Committee of Ten prescribed 20 periods a week as the proper number, but I recall that a chorus of protest went up from schoolmasters, many of whom claimed that 15 was nearer the proper mark. Count on 20 recitations a week,

say five in Latin, five in Greek or physics, and the remaining 10 divided among mathematics, history, English and a modern language, the work in each study being planned on the basis of the total time allowance given above. Of course, it can be done—we are doing all sorts of unwise things in our schools—but I doubt if you can find a schoolmaster who feels that it is wisely done.

Two or three points should be noted in passing. The Committee of Ten named 20 periods per week, but expressly stipulated that this was to be the maximum, not the normal, number, and also further stated that where the full number of periods was given, at least five of the 20 should be unprepared. It appears to be the assumption of the colleges—where they consider the matter at all—that they may reasonably frame requirements demanding 20 prepared recitations a week. I have no hesitation in asserting that the required work cannot be done in the number of periods assigned to each subject if one quarter of the assigned periods are given to unprepared recitations. On the strength of the Committee of Ten's report, the colleges are demanding what the Committee of Ten never dreamed of authorizing.

In the second place, if the maximum number of recitations that a pupil can carry must be given to the bare college requirements, what opportunity is left for drawing, music, manual training, elocution, penmanship or spelling, some at least of which have a place in the education of youth? College requirements leave small time for anything else.

Still another point that should be considered is the proportion of the required work that must be done in the last two years. It cannot be evenly divided between the four years, partly because so much of the work calls for the maturity of the later years, and partly because it must be kept fresh for the college examinations. For instance, history may very advantageously be studied in the first year of the school course, but to meet the standard set up in history by the College Entrance Examination Board is too great a task for the powers of a first-year student, and even if he could accomplish it successfully, he could not hold it in memory and be ready for

an examination two years later. The result is that the work is congested in the last two years. It has to be done with greater intensity, and it is necessary to carry too many subjects abreast. It was forcibly pointed out a year ago by one of our own number that whereas the colleges generally will not allow their freshman to pursue more than four or five studies at most at the same time, they force the sub-freshman, the younger, less capable schoolboy, to carry six, seven, or eight studies abreast. It is a menace to thoro scholarship, and it is a crime to the student. I firmly believe that one great cause of the pressure of college entrance requirements is the number of subjects that the pupils are compelled to carry at the same time. The quantity of work is too great, and it is made worse by being spread over too many subjects.

Thus far in this discussion, you may have noticed, I have spoken of nothing but a four years' course. The two questions naturally suggest themselves: Would not the difficulty be obviated by the establishment of a six year high school course? and, Is not the trouble done away with in private schools where such a course is feasible? To these questions I reply, first, that we have to deal with things as they are, not as they might be, or even as they may be. The four year high school course is what we have; a large proportion of college students are prepared in the public high schools, and it is probable that in the future the proportion will become larger instead of smaller. If this is the case, the question as to what the colleges may rightly demand must be considered with reference to what can be done in a four year course. In the second place, I reply that, while the conditions in schools fortunate enough to have a five or six year course may be slightly easier, yet the difference is not as great as might be imagined, and even in those schools the pressure is still beyond all reason. The mortality may be somewhat less than in high schools where a high grade of scholarship is maintained, and where the number of students dropped, simply because they cannot maintain the pace, is something appalling, but the fact remains that even in the most fortunately situated schools the pressure is altogether too great. That is a fact, not a theory, and the reason is not far

to seek. Simply beginning subjects one or two years earlier does not put pupils that much farther ahead, for the work must be done more slowly and less maturely. It has been found by experience in more than one school that students beginning a subject later frequently catch up in a comparatively short time with those who begin considerably earlier. There is a gain in beginning some subjects earlier, and there is a distinct gain in avoiding the abrupt and awkward transition from grammar to high school. There is a decided relief from pressure in the years corresponding to the first and second years of the high school, and there is some relief in the later years, but it is by no means great enough to solve the problem. The reason is that much of the work demanded by the present college requirements calls for a degree of maturity that does not exist before the later years, and therefore cannot be done before that time. No arrangement of a course of study, no beginning of Latin and geometry earlier, has yet succeeded in making a sixteen year old mind eighteen years of age. The situation is practically identical in both classes of schools. We are both of us confronted with an amount of work that we cannot do properly in the time allowed, and that the student cannot accomplish with the best results to himself.

Briefly stated, the substance of what I have tried to say is this. The requirements of the colleges to which we send our students vary from 13 to 17 points. In order to meet their demands our courses must cover at least 16 points. That is calculated by the colleges to require 20 periods of work for four years. The allowance of time for the individual subjects is in some cases fair, tho not generous, while in others it is decidedly inadequate. Almost any one of the required subjects can be covered in the time allowed, provided the demands in other directions are not too great, but the sum total of them all is more than the ordinary boy or girl can wisely or reasonably be expected to carry. That is the thesis that I set out to maintain.

Thus far I have discussed the subject in a somewhat technical manner, dealing with points, periods, and other peculiarities of our professional jargon, and I have done this because,

as I said at the beginning, I want to rest the case not on a basis of assertion and opinion, but on a foundation of fact. It has been a difficult thing to do, for our educational system is not uniform, and it is not easy to find a common denominator for our varying school courses. At the same time whether a program calls for 15 or for 25 periods a week, and whether a course is four years or six years long, I think that the argument is sound in principle, and that the same line of reasoning, with changed figures, will apply with equal force to nearly all cases. College entrance requirements *are* too great in quantity. Our experience tells us that our pupils are trying to do too much, and an analysis of the situation shows us where the trouble lies.

The result of this is an unreasonably high pressure in our schools, and this pressure in its turn is producing certain definite effects. It is one cause of the great mortality in our high grade schools. The number of pupils "dropped" in some of our schools is beyond all reason, and while this is by no means the only cause, one of the potent factors in producing this result is found in the college entrance requirements. Another result is the crowding out of subjects and of work that are of great importance in a well-rounded educational scheme. Personally I lay less stress on this than on some other considerations, but still it carries decided weight.

The great evil, however, resulting from the excessive entrance requirements of the colleges, is found in the serious congestion, especially in the last two years of the course. Too many subjects have to be carried at the same time, and too much ground has to be covered in each subject. The student's mind is distracted by the number of studies among which he has to divide his attention, and the quantity of work to be covered is so great that proper assimilation is impossible. Quality is sacrificed to quantity. Here we touch the heart of the whole question. We are not pleading that our labor as teachers may be lightened; we are not concerned chiefly that our pupils may have an easier time; we are striving to send into college the best prepared pupils possible. That does not mean those best fitted to pass examinations or those who have

gone over the greatest number of pages in text-books. It means those who are best equipped to go on with college work, and my contention is that we could produce better results, we could equip students better for college, if a smaller quantity of work were demanded, so that that smaller quantity could be done to relieve it? We are agreed as to the evils of the

This, then, is the situation. Is there anything that can be done to relieve it? We are agreed as to the evils of the existing condition of affairs. Is there any practicable remedy on which we can unite? There is one remedy, and but one. That is to face the situation squarely, and to change the conditions.

I make three proposals, two, at least, of which are feasible. In the first place, let us call a halt in the increase which has been going on steadily for so many years. Forty years ago the requirements at Yale amounted to just 9 points, counted on the Columbia scale. They have been practically doubled in quantity, and what is true of Yale is true of the country at large. Not only have new subjects been added, but the amount of work called for in almost every study has been increased, and this has been going on right up to the present time. In fact, the increase has been especially marked in the last ten years. Two years ago, at the Boston meeting of the National Educational Association, President Eliot and President Harper, speaking on the shortening of the college course, gave utterance to substantially the same opinion. They said that with the improvement of the secondary schools, it has been possible for these schools to take on themselves much of the work formerly done in the colleges; that it was reasonable to expect that the work of the schools would be still further improved, so that in the near future still more of the work of freshman year could be unloaded on them. These men are high authorities, they do not speak idly, and their words carry weight; but calmly, deliberately, and with all the emphasis at my command, I register an unqualified protest. The work of the schools has improved, and we shall undoubtedly be able to improve it still more in the future, but we protest against making that an excuse for piling still more of a load on the beast

that is already staggering under its burden. With better work in the elementary schools, and with the improvement of our own courses that may be confidently expected, we shall gain time, but we plead to be allowed to use this time for improving the quality of what we are already doing, and not to have new tasks piled upon us. We make this plea, not mainly that our labors may be lightened, nor chiefly that the work of our pupils may be made easier. We make the plea in the name and for the sake of sound education. We make it because we believe that, if a smaller quantity is demanded of us, we can secure better results, we can send into college more thoughtful students, better trained, better developed, less "crammed," better fitted for the work that is before them there.

In the second place I propose that the colleges boldly cut off some of the recent additions to individual subjects. I should be the last man to advocate such a scheme, if I felt that it involved in any degree a lowering of standard. Until very recently there has been no general standard of quality for college entrance. The statement in the college catalog has been one thing, and that which has been actually accepted has sometimes been quite another. Some colleges have maintained a high standard of quality, while others have fallen far short of it. The establishment and success of the College Entrance Examination Board is bringing about a different state of affairs. The great work that the Board is doing for education is in the setting of a definite standard of attainment in the different secondary school subjects, and this standard, it is agreed, is higher than that generally enforced hitherto by the individual colleges. Now this raising of the standard increases the difficulty of meeting the requirements, and the increase in quality added to the increase in quantity is making the present crisis still more critical. We do not complain of the demand for higher quality; we welcome it. I want to point out, however, that the improved quality makes it possible to reduce the quantity demanded without any lowering of standard. If time is limited—and time is limited in our schools—the student who covers algebra thoroly, thru quadratics, or even to quadratics, will be better grounded in

the subject than the one who in the same time has gone through logarithms, and the principle applies equally to other subjects. It is not for any one man to say just what should be cut out, tho each of us undoubtedly has his opinion. Personally, I should advocate a reduction of the requirement in Latin and Greek composition; I should not be deeply grieved by the sacrifice of some of the topics now called for in algebra; I should hail with unfeigned joy the placing in an appendix of 50 or 60 of the 70 or 80 interesting but non-essential propositions that now adorn our geometries; I could stand the shock of seeing physics become more descriptive and less mathematical; and I could even bear with equanimity the transfer of Charlemagne back to the Middle Ages, where he used to be before the time of the Committee of Seven, and the restriction of ancient history to the days of antiquity. I am not now, however, concerned with specific details. My present plea is for the principle. If that is once recognized, the details can be settled by conference and consultation.

In this connection two recent instances of the reduction of college requirements are worthy of note. For some years the college examinations in English have troubled us because of their insistence on a knowledge of details of the assigned books, requiring an amount of time and attention not justified by the results. Last winter the Conference on Uniform Entrance Requirements in English modified the requirement by allowing considerable choice in the books to be read and studied. Not only does this allow the selection of books adapted to the peculiar needs and powers of the class, but, since it is impossible to frame an examination testing minute knowledge of so many books, it makes it necessary that the examinations shall pay less attention to knowledge of details, and lay more stress on general understanding and power of expression. This means fewer details to be held in mind, and less memorizing, but no reduction in the quality of the English demanded. The second instance is that of Yale College, which this year takes Ovid from its list of requirements, compensating for this by giving a more thoro and comprehensive examination in Latin grammar. This appears to be a

reduction of quantity, but a demand for improved quality. Both these steps are significant. They are steps in the right direction, and are worthy of imitation in other lines and in other quarters.

The third proposal I make with some diffidence, for it is more radical, and is much more doubtful of accomplishment. It is that one or more of our leading colleges should squarely face the situation and reduce the requirements to 15 or even 14 points. Such a thing would be a step backward if it meant a lowering of standard, but it would not mean a lowering of standard if it were properly safeguarded. With the reduction in quantity should come an absolute insistence on a high standard of attainment in the subjects that remained. The number of conditions with which a student might enter should be reduced, the standard of examinations should be honestly maintained, and September examinations should be fully equal to those set in June. The practice of "cramming up" in the summer should be effectually discouraged, and, above all, the work in the college should be so organized that an incompetent or improperly prepared student could not carry it successfully. Perhaps such a consummation is not to be hoped for, but I firmly believe that if this plan could be adopted our colleges would secure better prepared students than they are getting to-day.

I have made three definite proposals: to check all further increase of requirements, to reduce somewhat the quantity required in the individual subjects, and to reduce the number of subjects now called for. The third is perhaps too much to expect, but the first and second are both practical and feasible. The time is ripe for such a movement. It is in the air, and if we can but make a united and determined stand, there is every reason to hope for success.

In one sense it is a conflict—the colleges on the one hand asking for all that they can get, and the schools on the other protesting that the demands are too great. But in a deeper and truer sense there is no conflict, for we are both seeking the same end, both striving for the same ideal. Education should be one continuous process from the first day of school life to

the awarding of the last degree. There is now a break between school and college, and the bridging of this gap is a problem that concerns both alike. It is not a question of the school or the college winning a victory. The schools are not striving to wrest something from the other side. We firmly believe that if college entrance requirements were reduced in quantity, we should be able to send into college students better equipped, physically and mentally, to do the work that awaits them there, and because we believe this we make our proposal with hope and with confidence.

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II

AN AUSTRALIAN'S IMPRESSION OF OXFORD¹

Wherever one goes, and whatever landscape or seascape one sees, there always remains in the mind (at least that is how it seems to the writer) some color impression of any particular place or scene. Details may be clear and sharply cut or they may be dull, but always the background has a certain characteristic tone of its own—some combination of two or three simple colors lithographed on the brain—that is always of the mental picture which recollection frames. Thus, London is drab; the Mediterranean is wholly blue; the Red Sea littoral is a combination of gray, yellow, and red—the look of its barren shores; South Africa is yellow plains and purple kopjes; the Solomon Islands are green mountains, opal waters, and white beaches; Australian plains in drought time are gray and blue—the colors of earth and sky. As one recalls each picture, the objects in the foreground and the middle distance and the background define themselves more or less realistically; but always the predominating tones make the scene familiar. Each one is, so to speak, cataloged and classified by its essential colors. Consider a familiar stretch of water,—the Thames between Greenwich and Westminster. If you close your eyes and think of it, is not dull yellow the first recollection of it that comes across your mind?

Think of Oxford, if you have been there even for ever so short a time. Does not the old city shape itself out of a grayness and a greenness that are its background of charm,—the gray of its ancient walls, and the green of its beautiful trees, and gardens, and walks, and fields? Afterwards come the winding streets, the window-gardens in the quads, the towers and spires, the halls and the chapels, the young fresh faces, the placid waterways. But always and forever they stand out from amidst a lovely setting of gray and of green.

¹ From the London *Spectator*, September 23, 1905

And always the gray seems to symbolize great age and the wisdom of the centuries; and the green the eternal freshness and beauty of the springtime of life, and the promise of years to come.

"The world, surely, has not another place like Oxford; it is a despair to see such a place and ever to leave it, for it would take a lifetime, and more than one, to comprehend and enjoy it satisfactorily,"² wrote a man whom all who have ever known the place must write down a wise man, even if he had no other claim to be one. It is indeed "a despair" to see Oxford and to fail to realize its meaning, as almost inevitably must those who run to it hastily for a day and come away again. Ten hours might do for a dockyard, an arsenal, or a manufacturing center; but ten years would hardly teach a newcomer that which is to be learned from the stones of Oxford. In a day he is only just able to realize how little he realizes of it. It is borne in upon him with startling force that he possesses no "yesterday," that he has nothing behind him with which to compare what is to come before, that he has dropped suddenly into a world where he must wander in ignorance. The books that he may have read do not matter, the ideals that he may have formed do not count,—it is not quite like anything he has seen, or read of, or imagined in all his life before. It may be to people from older lands. They may have seen and known other old-world paradises,—if there be any other quite like this. But to us who find an old Georgian, verandaless house a quaint survival of bygone days; who ride past the gray posts of broken-down stockyards, idly wondering what kind of prehistoric people branded cattle in them; who have marked Captain Cook's landing-place at Botany Bay as a monument to the dawn of our civilization, Oxford is a little unreal. We know, however, that it is ourselves who have eyes and see not. They are not in focus, somehow. They cannot serve us as we are accustomed to expect of them. It is our own fault,—and not altogether our fault.

For remember this. We are new. Everything to us lies

² Nathaniel Hawthorne.

in the future. We honor and respect the memory of our pioneers—the brave men and women who faced harder troubles than battle in the “blazing” of the tracks which opened up our lands for us; who lived lives of hardship and solitude such as no Englishman who has not been out of England can understand—and at home their fine deeds make our history. In 1813—ages and ages ago: time moves so swiftly in new countries—Wentworth and Lawson won a way for us across the Blue Mountains, and led the way to our rich Western lands. That is one of our “dates,” and to us at home it is as far back in the past as the signing of Magna Charta is here. The *Victory* still floats at Portsmouth, and Nelson’s clothing may be seen in Whitehall; but 1805 to us is almost at the beginning of the world. Thirty years ago in Australia is a very long time back; in England it is the day before yesterday. What we take to be ancient and historic would here be garishly new. And so, in Australian eyes, Oxford is unreadable. One may only look and admire, and come away a little pleased at having at most been touched by a sense of its age, and beauty, and grandeur. For the rest, we must take it on trust. It would be an impertinence to pretend to any adequate realization. But, having been there, it is at any rate possible properly to appreciate the pride of the Oxford man in the mere fact that he is an Oxford man. Nay, further, it is even possible to understand the bumptiousness of the Oxford prig,—almost, indeed, to sympathize with it. He has something to be a prig about.

It may even be confessed that one goes to see Oxford in just the suspicion of a hostile spirit. Many times, in many parts of the world, one has met with the Oxford man who seemed to be inordinately proud of the fact that he was such. A few times, to one’s sorrow, one has come in contact with the wholly-to-be-regretted being alluded to above as the Oxford prig. And, as has been said, until one has one’s self gained some inkling of the justification which both man and beast have for their pride and their priggishness, both are a little resented.

There is a story of a certain eminent and genial sheep-

breeder in New South Wales who was so earnestly convinced of the superlative excellence of his stud flock, and the immense superiority of his hundred thousand acres to any other hundred thousand acres of land anywhere, that on all possible and impossible occasions he sounded their praises to such victims as would hearken. Traveling once on an inter-State steamer, he met a mild tourist, who for three weary days was perforce compelled to listen to the praises of the Boastful Downs Run and the Boastful Downs sheep, until in his extremity he quietly remarked. "But, tell me, Mr. Golden-Fleece, is Boastful Downs in New South Wales, or is New South Wales in Boastful Downs?" One has almost been tempted at times to wonder whether Oxford was in England, or England in Oxford.

Perhaps we are always too ready to scoff at what we hear praised too freely,—it is the characteristic irreverence which we have been assured Australians possess to a degree. The Universities of Sydney and Melbourne, we might remind ourselves, have higher "pass" standards for a degree than Oxford. One can get to know just as much at either of them as in the ancient, out-of-date knowledge-shop up the Thames Valley. We might comfort ourselves with the reflection that Oxford is not "the only pebble on the beach." But go and see it, ye scoffers, and assuredly it will seem plain and clear that that is just about what Oxford is,—"the *only* pebble on the beach." At any rate, once having been there, there remains no resentment, no spirit of hostility, no rebellious determination not to take for granted another of the institutions which the English seem to regard as being above criticism. There remains nothing but admiration, wonder, affection, and a little envy. All latent hostility has ebbed away. All desire to adopt the *nul admirari* standpoint has gone. Oxford will have brought about your surrender to the charm of the old and the beautiful if nothing else in England has ever done so.

It is so old, so quiet, so beautiful. The gray walls of college and hall, chapel and cloister, take you back into a splendid past. The wonderful lawns, the clinging vines that carry the green over the gray, the long shady walks thru

verdant arcades, the gentle waterways, the patches of golden sunlight filtering thru the trees on to grass and gravel and worn stone pavement, are of to-day, and of yesterday, and of many yesterdays. Quick voices, eager steps, laughter across the quadrangles, fresh, healthy faces, are the preparing for to-morrow which seems indefinitely to blend with the present and the past. Somehow, in some way you can only vaguely realize, past and present and future are united here. The by-gone years lurk about the gray stones. In the arch of a window, in the vaulting of a passage, behind a massive door black with age, venerable ghosts of days that have been seem to look out on a world that is their own world, and yet a new one. Time has walked slowly thru the colleges,—has even, one would think, not hesitated to sit down and rest when it has pleased him so to do. He could not hurry here. All Eternity might be waiting; but there is that in the air, in the aspect, in the spirit of the place which must delay him. And so, occasionally, the Past has caught up with the Present, and both hold the hands of the Future.

How it all contrasts with every other place that one has seen! Glaring little white-walled dorps in the Karoo; weather-board and crackling galvanized iron in the back-blocks; wind-lashed townships in Otago; rustling plantations in the Pacific,—every remembrance of places, and men in the places, that one has recur. All the colleges in the great University of the World—from fo'c's'le to shearer's hut, from Port Said to Port Melbourne—where the Faculty of Experience is paramount, are in competition with these old foundations, and so much as one has seen of them rises up for comparison. But there is nothing like it all, nothing to compare it with. Oxford stands alone.

Put aside all books, leave all learning to take care of itself, take no heed of honor lists,—look at Oxford from without. Never mind its influence on English life, its influence on English politics, its bearing on world destinies,—take it as it stands. Just see it. Carry no introductions, be led by no guide, hear nothing of story and tradition. Content yourself with what your eye alone may convey to your brain. Stand

and look. And then, if you have breathed in ever so little of the beautiful spirit of the place, have become aware of an inward sense of reverence which may in the slightest degree have influenced you towards feeling healthier, and better, and cleaner of soul,—then you have seen Oxford. You may not understand the deeper meanings that Time has written on the gray walls—perhaps you are too new a product for that—and you may not altogether realize what life means within them. but this you cannot fail to comprehend,—that Oxford itself is almost the noblest place you shall have seen in England. Take this idea out to the Back of Beyond. You will never lose it. “The world, surely, has not another place like Oxford.”

III

THE DISTRIBUTION OF DISTINCTION IN AMERICAN COLLEGES¹

It is alike interesting and important to control casual impressions of the efficiency of educational provisions by the convincing testimony of statistical evidence. The value of such statistical deductions is often questioned, and perhaps most often by those least conversant with the nature of the data and the principles underlying their proper treatment and interpretation. It certainly is true that no instrument of modern research requires more skillful handling than is demanded for the just interpretation of number-relations. The problem of ascertaining how far the education and the inspiration that come from college years are really formative and influential factors in the life of the college graduate individually, and in the life of the nation collectively, is one that strongly tempts the application of every promising kind of test. The question thus proposed is not mainly the narrowly personal one of whether and how far a college education pays, and in what sense it is an equipment for success; it is the more general one of the extent to which college graduates participate in the successful careers upon which our national status and welfare are intimately founded: what type of college is most successful in performing for its students the service that places them most favorably in line for preferment,—more particularly what historical, geographical, social, and educational factors may be shown to be the most influential contributors to the desired result? The suggestion

¹ It is pertinent to explain that the present study was begun and nearly completed shortly after the appearance of the second edition of *Who's who*; that it has been delayed in completion thru several unlooked-for circumstances; and that, notwithstanding its limitations, it seems desirable, in view of the unlikelihood of a similar investigation for many years to come, to place on record the present results. Tho they have been gained at an unprofitable expenditure of energy, it is believed that they are of sufficient intrinsic interest to warrant the present publication.

is near at hand that such a test may be found in observing the proportion of men graduating from college who achieve distinction in after-life; the proportion who receive the stamp of approval from the world at large, and who receive it in a greater measure than those who are without the advantage of a college education. The difficulty is to fix upon any such standard yardstick of success or distinction that may be applied with reasonable accuracy. But even a poor standard is better than none at all,—just as a watch that departs appreciably from chronometric precision is a better means of regulating one's engagements than no watch at all; and with judicious use and insight, practical results may be obtained with decidedly imperfect tools.

The publication of *Who's who in America* (1st edition 1899, 2d edition 1901, 3d edition 1903) makes possible many statistical comparisons that are inviting, and if properly carried on, instructive. Unquestionably the appearance of one's name in *Who's who* is not a final or authoritative standard of one's merit or even of one's reputation. Individually, the test would frequently fail; but it is as needless as improper to make any such individual application. It is fortunately true that what is statistically correct and legitimate does not appreciably lose its value by minor fluctuations of accuracy in sporadic cases. Not only is it unquestionably true that the average of distinction of those persons mentioned in *Who's who* decidedly and overwhelmingly exceeds the distinction of the average citizen, but also that, considered in large groups, the names of this volume represent the uppermost level of ability (in some callings, if not in all) in American life. After making all possible allowance for accidents of various kinds, it remains conspicuously true that the use of such a book, with proper precaution, is entirely legitimate as a test of distinction and of the ability that leads to success,—*provided always* that such test is applied fairly and statistically to large groups, and with allowance for the probable error of the compilation. Several studies of this kind have appeared within recent years; and in the preface of the second edition of this index to contemporary America, certain interesting com-

bers the degree of this superiority of the Phi Beta Kappa man over the rest of his college class. Professor Dexter (*Popular science monthly*, March, 1903), from whose articles I have taken most of my data, concludes that the Phi Beta Kappa man has 2.8 as great a chance to get into *Who's who* as has the average college graduate. But Professor Dexter's ratio for the average college man—as I shall show later on—is based upon too generous an estimate in regard to the total number of living alumni that may be said to enter into the comparison. By taking these data from the actual alumni lists of a sufficient sample of these colleges, the ratio of superiority reduces to 1.55; and there are other considerations that lead one to regard the latter number as representing the degree of superiority more fairly than the former number. There is no uniform ratio as to the degree of this superiority in the several colleges. At Harvard, Bowdoin, Cornell, Dartmouth, Wesleyan, and Williams, the Phi Beta Kappa man is twice as successful or more than twice as successful as the rest of the college in getting into *Who's who*. At Columbia, Yale, and Trinity he is less than half again as successful. At Amherst and Brown he is about equally successful. At Hamilton and Middlebury he is actually less successful. I have no way of accounting for this difference. The considerable variation of the ratios themselves would indicate that the superiority is dependent upon rather complex factors. On the other hand, if we confine attention to the college men who *do* succeed in getting into *Who's who*, we may accept Professor Dexter's statement that 39.3 per cent. of the *Who's who* college men are members of Phi Beta Kappa, while of the college classes concerned, on the average only 15.7 per cent. were elected to this honor society. This ratio—2.5 to 1—is a fair expression within the college class, of the Phi Beta Kappa superiority as tested by distinction in later life.

In the case of two of the larger New England colleges the exact standings in class of its graduate members were investigated with the further conclusion—quite in reversal of the ordinary belief that those who graduate at the head of their classes usually turn out to be very commonplace mortals, if

not actual failures—that by far the largest percentage (5.4) of mentions in *Who's who* is found among those who graduated in the first tenth of their class; and the second and third tenths furnish an appreciably greater clientèle (2.7 per cent.) for *Who's who* than do the remainder of the class, who represent its average (1.8 per cent). and fairly uniform contribution to *Who's who* distinction. Professor Dexter has even found for a limited group of classes, that the men who graduate at the head and in the second and third places in their classes, distinctly excel even the high proportion of *Who's who* men that was achieved by the first tenth of the class. This preponderance in favor of the high-grade and of the highest-grade of college men, decided by the ability to achieve the *Who's who* type of distinction in after life, is convincingly established.

The present inquiry aims by a similar method to compare the success of various colleges and various types of colleges by the comparison of the proportion of their graduates who are mentioned in *Who's who*. This comparison is quite difficult to make—not ideally, but practically—because the data that are most desirable are not forthcoming. In many respects it will be necessary to confine the inquiry within the limits for which the data are most nearly available. What we first wish to know is the number of college men who are mentioned in *Who's who*, and what is their distribution. Furthermore, it is not at all necessary that our count should be exhaustive; if it includes a half, or any fair proportion of college graduates, we shall be dealing with a sufficiently large sample of the whole. Our educational system, or want of it, has produced such an absurdly extensive number of institutions that call themselves colleges, or more usually and with less modesty, universities, that any statistical investigation is confronted by an embarrassing array of possible enumerations. The great mass of colleges of this type, of which any individual college would contribute but a very small handful to *Who's who*, will only be incidentally considered in this investigation.

As to the distribution of the *Who's who* collegians, the inquiry begins naturally with their distribution as to time. The

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chronological presentation is interesting. For this purpose I have taken my statistics rather liberally, without much correction for any specific purpose, and have included about 60 per

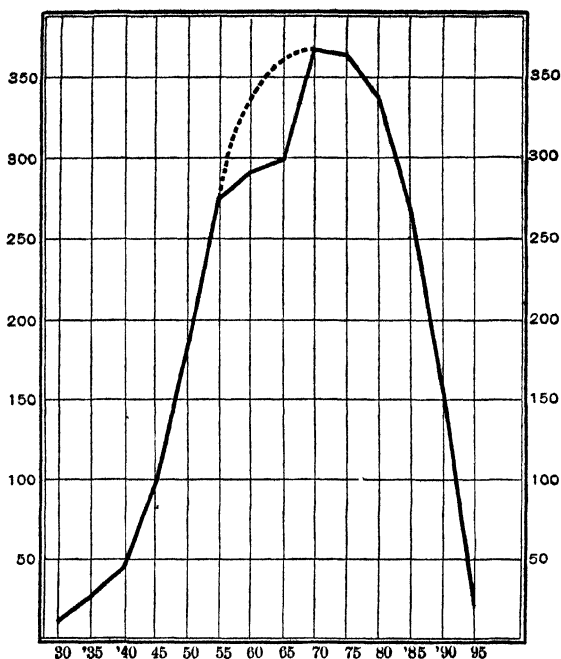


Figure 1.

The curve represents the actual number of living college graduates (of a considerable selection of colleges) whose date of graduation falls within the five-year periods indicated below. Thus '40 means the years from 1840 to 1844 inclusive. The numbers at the sides indicate the actual number of college graduates enumerated in *Who's who*—thus the portion of the curve from 1870 to 1874 (which represents the maximum) shows that within this period there are 367 living graduates of the included colleges. The most notable irregularity in the curve is that due to the Civil War. The decade from 1860 to 1865 shows a decided diminution in living graduates—the defection being fully restored only in the period beginning with 1870. The broken line indicates the probable distribution for the period 1860-1870, had there been no civil war.

cent of all the college men included in *Who's who*—all that I have tabulated. Grouping them in five-years periods, there appear to be of those who graduate between 1829 and 1834, 12; between 1834 and 1839, 25; between 1840 and 1844, 44; between 1844 and 1849, 92; between 1850 and 1854, 174;

between 1855 and 1859, 276; between 1860 and 1864, 292; between 1865 and 1869, 298; between 1870 and 1875, 367; between 1875 and 1879, 363; between 1880 and 1884, 334; between 1885 and 1889, 266; between 1890 and 1894, 158; between 1895 and 1898, 23; in all, 2724. When these data are placed pictorially before the eye, certain relations become evident. The distribution follows a very regular path, save for one striking interruption, falling in the period between 1860 and 1870. The Civil War turned many away from college and diminished the number of graduates for that period, and the individuals thus deprived of a college degree—supposing them to contribute their due share to *Who's who*—will naturally not fall within the enumeration expressed by this curve. This gives one a very realistic sense of the fact that these numbers represent the resultant of a fairly complex, but very real state of affairs. This impression is intensified when we similarly survey, as the edition of 1903 enables us to do, the general age-distribution of the total enrollment of *Who's who*. When this is tabulated, we obtain a curve that is in all respects so similar to the collegiate curve that it is not worth while to complicate the chart by adding it thereto. It must be noted that the second edition of the publication gave no basis for computing the general curve and that the collegiate curve here presented was plotted before the appearance of the third edition. To find so striking a similarity in the result is a welcome evidence of the significance of the status here exhibited, and of the fact that the collegiate curve may be regarded as a fair sample of the entire enrollment. In only one respect is a difference to be noted large enough to be significant, except that naturally the curve based upon the larger numbers is smoother than the more limited curve. This relates to the deflection produced by the Civil War; while the same break in the continuity of the curve occurs, it is less marked: thus indicating that the period of the war was more effective in keeping men from college than in preventing them from acquiring distinction. Apart from those who lost their lives in this conflict and so still leave the impress of their loss, in the American book of the honorable living forty years after,

we have an indication that the survivors in due proportion achieved distinction, altho they were in specially large measure deprived of the aid thereto offered by a course in college. In the curve, as shown on the left-hand side, the rapid diminution expresses the increasing mortality with years. Even supposing that there were as many candidates for *Who's who* distinction in these earlier classes as for the middle period and the later years, (which of course is not the case,) there would be a rapid decline of the representation of the earlier graduates owing to their dying out. The actual curve represents the combination of both of these factors. The middle period of life, including the groups from 1860 to 1885, embraces by far the greatest measure of *Who's who* collegians—in all 64 per cent. of the whole—a proportion that would be still higher were it not for the decrease resulting from the Civil War. For the last and youngest group of collegians the representation again sharply and rapidly declines. The cause of this decline is the fact that it takes a considerable number of years for a college graduate, or indeed for any promising man at that period of life, of however excellent gifts, to establish his rank, make his name, and thus be enrolled in *Who's who*. As the left portion of the curve is predominantly an index of mortality, so the right portion becomes an index of immaturity. This decline might possibly be more pronounced than it actually is, were it not for the fact that the number of these young collegians, owing to the decided increase in college classes, is a distinctly larger one, and so in some measure counterbalances the smaller portion of this generation who have within a few years established a *Who's who* reputation. Yet this does not apply in greater measure to young college graduates than to promising young men in general.

While our ultimate interest is centered in the ratio of the *Who's who* collegians to the total number of living graduates from among whom they were selected, it is interesting to consider more closely the distribution of the living graduates and their contributions to the *Who's who* volume. It must be emphasized that the datum that is most difficult to secure is that of the actual number of graduates alive in any one

year,—for our purposes, the year 1900. The only reliable source of information is presented by the alumni lists published by many of the colleges. These are compiled with variable accuracy, and certainly with variable convenience for the purpose of the statistical investigator. I have been able to secure forty-six of these catalogues, including all sorts and conditions of colleges, but including, with few exceptions, all of the score of prominent colleges which one certainly would desire to include in such a survey. Not all the names mentioned in these alumni lists are to be regarded as eligible to the kind of *Who's who* distinction that we are studying. In enumerating the collegians in *Who's who*, only those were counted who mentioned the fact of taking a baccalaureate degree; and each man was credited to the college in which he took such degree, without reference to any further degrees which he may have taken elsewhere. No professional degrees were considered in the enumeration. Further, the count was limited to men, as the coeducational factor would have introduced a complication that was irregularly applicable to a minority of the cases only. It is not so easy to say, in the *embarras des richesses* of American colleges, just what constitutes a college degree. It is also difficult to determine just what semi-professional degrees should be included. Every attempt has been made to be consistent in the matter, but no rigid rule was followed, but rather a special judgment taken in all doubtful cases. The B. S. degree offers the most difficult query. In some institutions the degree is confined to engineers, in others to scientific students. I have adopted the rule in all clear cases to exclude it where it represents a distinctly technical engineering education, and to admit it when the course was probably taken with all the academic surroundings that would be available to the other collegians. Thus I have included students of the scientific schools at Harvard and at Yale, and others of like grade. I was practically forced to this course by the fact that most of the men mentioned in *Who's who* in great part simply indicated that they were Harvard men or Yale men; but as I counted these in my *Who's who* enumeration, I must likewise include in my general

enumeration the larger number from among whom these have gained special distinction. I have no doubt that on this score some error has resulted—an error affecting some institutions more seriously than others; but I am equally confident that such error does not diminish the value of any of the general conclusions upon which emphasis is laid. When the college was given, but not the year of graduation (and it is surprising how often this and other gaps in the data of education occur), the average date of graduation was assumed, and from the date of birth of the individual the probable year of his graduation was supplied.

The general curve of distribution shown in Fig. 1 has pointed out that the youngest college graduates are in no fair sense “eligibles” for the *Who's who* degree. It seems fair and convenient to cut off the curve at the “1890” point; this I have done for all my calculations in which ratios are considered, tho I have deemed it well enough to have them in mind for other purposes. Similarly, the number of living collegians who graduated before 1840 was too small to warrant consideration. My main investigation is thus confined to certain college graduates between the years of 1840 and 1890. Within this period we retain 92 per cent. of all those enumerated in *Who's who* and falling within the selection of colleges here considered. This selection of “alumni list” colleges gives me more than 50 per cent. of the collegians mentioned in *Who's who*—an ample proportion for all purposes. It remains to add that it was foreseen that only colleges of a considerable age could be included in many of the comparisons to be made. Practically no college was considered, even where an alumni list was available, that graduated its first class later than 1870. Our data have thus to do in the main with the male graduates in arts in a selection of forty-six colleges that have kept alumni lists and whose records go back as far as 1870.

While I shall use these forty six colleges for most of the comparisons, I shall for the purpose of age-distribution find it best to still further limit the data in order to secure comparable results; namely, to those thirty-one colleges out of the

forty-six that have a continuous record back to 1840. This omission is far less extensive than it appears; for the fifteen colleges thus omitted contribute only one-eighth of the *Who's who* men belonging to the forty-six colleges, and only one-sixth of the total of college graduates of the forty-six colleges during the period considered.

Constructing first the general curve of distribution of *Who's who* collegians for these thirty-one colleges similar to that constructed in Fig. 1, we obtain the heavy line of Fig. 2. The result is quite the same as before, the curve being not so regular in contour, the gap made by the Civil War equally prominent, and the other characteristics of the curve apparent. In the same figure is shown in the dotted line the growth of the number of graduates of these colleges for the period 1840-1900. It must be understood that this is a curve of living graduates only, which means the number alive in 1900.² This curve accordingly does not indicate the increase in the number of collegians for each five-year period from 1840 to 1890, but only of those that have survived up to 1900. It is obvious that a far greater proportion of the later classes do survive, and therefore we know conclusively that much of the increase of the curve is due to the lesser mortality of the younger collegians. To estimate the amount of this factor, I have placed on the chart the mortality-curve according to the American Experience Tables of the life insurance companies for the average of insured lives of individuals of the same ages. Had all the

² As the alumni lists were published at different periods, some corrections must be applied to bring them to the same period. To obtain a standard for doing this, I have in a dozen cases, including the most eminent and largest colleges, taken at least two alumni lists published at intervals of several years, and compared the proportion of living graduates (before 1890) in the two. This will of course always be less in the later lists. From this comparison I conclude that the death rate of college graduates of the period included was about 1.89 per cent. per annum. If accordingly I have an alumni list of 1895, I deduct from the number of living alumni there recorded five times 1.89 per cent. of the total number. It is in this way that all the colleges have been placed upon the same footing. I have not found it necessary to make allowance for catalogues issued later than 1900, but I have indicated by a minus or plus sign the effect of this factor upon ratios deduced from the number of living alumni. What I have done, then, is simply to bring the surviving alumni of the year 1900 into comparison with the *Who's who* alumni of the year 1900.

college classes been equal in size since 1840, and were the college mortality the same as that of the non-collegian, then the curve of living graduates would be the same as the mortality curve. The difference between them shows the decided relative excess of collegians since about 1885, and the relative smallness of the college classes from there backward.

At the top of this figure I have placed a series of lines opposite the appropriate semi-decade, the lengths of which lines indicate the proportion of *Who's who* men for the several periods in terms of the living graduates of the period. Had each five-year period been equally productive of *Who's who* men, the length of this line would have been the same thruout. It appears that for the middle-aged men this comes near to being true. The graduates from 1850 to 1870 show much the same proportion of *Who's who* men—for the selected colleges here considered, about 7 per cent. or 1 in 14 or 15. Further on the proportion declines, and for the last decade of the century very decidedly declines. This decline represents the fact, everywhere apparent, that it takes a number of years after graduation to achieve the *Who's who* distinction, even for those persons who will inevitably achieve it. Not 1 in 700 of the men out of college from 0 to 5 years find a place in *Who's who*; about 1 in 140 of all out of college 10 years or less are mentioned in *Who's who*; 1 in 68 of those 15 years or less out of college; 1 in 46 for those 20 years out of college, and so on until on the average we have the ratio of about 1 in 21, or omitting the last decade, 1 in 19. Why the older classes should show a smaller proportion of *Who's who* mentions, it is not so easy to explain. It would seem as tho age should not bar one from mention in *Who's who*. I am inclined to account for the fact that it appears to be a bar by the consideration that *Who's who* was made up at the very end of the century. Had it been published a score of years or two score of years earlier, the names of men would have been included who were notable in that day, but who, tho in due proportion alive in 1900, had been forgotten. Had there been a *Who's who* in the early days, their names would have been included, and once in, very likely would have remained in. This factor

would be influential in decreasing proportion as we go backward, and perhaps accounts adequately for the nature of this decline. We are hardly warranted in assuming that these early periods of the nineteenth century were less productive of distinguished men than the later ones. It seems fairer to explain their relative absence from *Who's who* by the fact that this biographic directory has naturally given prominence to the college graduates of the middle and later portions of the nineteenth century.

The main curve of Fig. 2 is quite as readily interpreted as a curve of age-distribution as of years since graduation. It has been shown (by Mr. W. Scott Thomas in the *Popular science monthly* for June, 1903) that the age of college graduates shows a very slight variation from the average of $22\frac{1}{2}$ years; hence the addition of $22\frac{1}{2}$ years to the years that have elapsed since graduation furnishes the required transformation. Thus men of the period of 1870 to 1874 would be on the average fifty years old in 1900. If we calculate the average age of the graduates of the forty-six colleges by this method, our result becomes 50.7 years (or 52.3 years if graduates since 1890 be excluded). For the list of the thirty-one colleges it is 51.5, or 53.1 years, excluding graduates since 1890.³ As compared with the average age of the total enrollment of *Who's who* men, this shows a slightly more youthful average for the collegians. A similar calculation for *all* college graduates gives an average of 41.9 years for the larger group and 41.8 years for the smaller group. The collegian enrolled in *Who's who* is thus about ten years older than the collegian who is not enrolled in *Who's who*. Tho this difference cannot be interpreted as an exact expression of the average time that it takes a college man to achieve the *Who's who*

³ In many ways the median (that is the number that is as *often* rather than as *much* exceeded as it is fallen short of by the individuals in the group) gives a fairer comparison than the average. This would be especially true for the total of college graduates that includes so many of the younger men. The median age for the larger group of college graduates is 41.1 years (49.8 if graduates since 1890 are omitted), of the smaller group, 37.5 years (48.9 if graduates since 1890 are excluded). The median age of the *Who's who* men of the larger group is 47.8 (53.5 years if the graduates since 1890 are omitted); of the smaller group is 51.5 (53.1 if the graduates since 1890 are excluded).

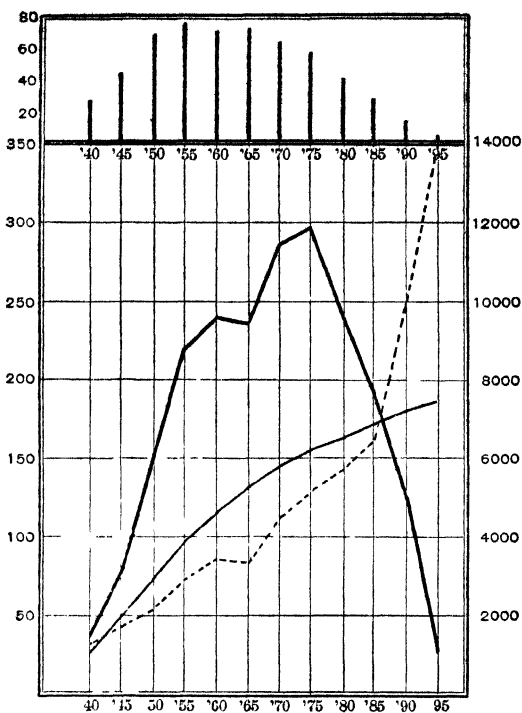


Figure 2.

The heavy line represents for the 31 colleges for which a complete record is available from 1840 to 1900 the same distribution represented for the larger group of colleges in Figure 1. The broken line represents the actual number of living alumni of these colleges. It shows at first a moderate, then an irregular increase (due to the Civil War) and in later years a more decided increase. To indicate relatively what part of this increase is due to the dying off of the older graduates and what part to the increase in numbers of the more recent graduates, the light line is added to show the mortality curve (according to life insurance experience) of men of the same ages as the college graduates. The difference between these two curves indicates the relative fluctuation in the actual numbers of college graduates for the several five-year periods, the most noteworthy feature being the great increase in college graduates since 1885. At the top of the curve are represented by the lengths of vertical lines, the proportions, relative to the actual number of living graduates, of the *Who's who* college graduates. The more recent graduates fail, as is natural, to be represented in due proportion to their numbers, the graduates of the middle period show a fairly uniform representation; while the older graduates (probably owing to the recent date at which *Who's who* was compiled) again show a falling off in their contributions to *Who's who*. It must be understood that these lines refer to *relative* representation, the differences in actual numbers of living alumni being eliminated. The numbers on the left refer to the number of mentions in *Who's who*; those on the right to the total enumeration of living college graduates.

grade of distinction, the difference is certainly related to this fact; but no quantitative relation can be deduced therefrom. It becomes clear from this survey of ages that we are dealing in the case of the *Who's who* collegians mainly with middle-aged and older men. An interesting corroborative index of this fact is given by the editors of the second and third editions of *Who's who*. They tell us that of the 8602 names included in the first edition, 498, or a mortality of 29 per thousand per annum, were known to have died in the two years elapsing between the appearance of the first two editions, 27 per thousand between the second and third editions. This would seem at first sight to be a very heavy mortality indeed. If, however, we take the collegiate *Who's who* man as a fair sample of the whole, and calculate separately the average death-rate for the number included in each of the five-year groups represented in Fig. 1, we obtain a rate of 28.5 per annum per thousand, which would seem to indicate, so far as the comparison is legitimate, that the death-rate of *Who's who* men is the normal one for the men of the ages represented in the distribution curve of collegians in *Who's who*.

The first portion of our inquiry has thus considered the distribution in time of the distinguished graduates of American colleges, leaving to the second portion that which is concerned with a similar local or geographical distribution. Obviously the most important table is that presenting for each college the proportion of (a) its representation in *Who's who* and (b) the number of its living graduates eligible to that distinction. I have already indicated that the former datum (a) offers no serious difficulty other than that of maintaining a consistent inclusion or exclusion of technical or semi-technical degrees, and this will not seriously affect the desired ratio, $\frac{a}{b}$. I have indicated that the latter datum, (b), can be obtained only from alumni lists, which must be examined both carefully and critically; and finally, I have indicated that the several resulting ratios of comparison, $\frac{a}{b}$, for the several colleges, are strictly comparable with one another, only in so

far as the composition of the body of the alumni is measurably the same; more particularly, (1) that only male graduates should be enumerated, (2) that the institutions concerned should be at least thirty years old, and that proper correction should be applied to those not as old as sixty years, (3) that alumni of less than ten years' standing should be omitted in all cases,⁴ (4) that some allowance be made in favor of those institutions in which semi-technical degrees must in some measure be included, and (5) that a correction should be applied to bring all the alumni lists to a fair comparability as to date of compilation with one another and with the date of the compilation of *Who's who*.⁵ Any comparison that neglects these factors is certain to be unreliable and is likely to be misleading. Even the legitimate comparisons must be interpreted as certain in their general applications only; and no stress should be laid upon the precise figures nor upon minute differences.

As the ratio $\frac{a}{b}$ is to be the leading figure in this discussion, it may be worthy of a name. I shall call it the "index of distinction." I shall always present it as the ratio $\frac{a}{b}$ *corrected*, in accordance with the points above enumerated. I present, first, the list of colleges in alphabetical order, giving for each its number of mentions in *Who's who*, the number of living alumni (both within the group of years above specified), and then the ratio of the two numbers, which in those cases in which no correction need be applied will be the actual ratio of the numbers given in the table; but in most cases will differ from that ratio thru the application of one or more of the corrections to which I have already referred.

⁴ The possibility of applying this correction I owe to the courtesy of the Commissioner of Education, who has furnished me with the necessary data. The data thus supplied have been used to advantage in connection with the alumni lists.

⁵ For the mathematical treatment incident to these corrections I am indebted to verbal suggestions from Professor Moore of the University of Chicago, and to practical aid furnished me by Mr. W. M. Persons of the University of Wisconsin.

TABLE I

COLLEGE	No. in "Who's who"	No. of Living Grads. in Arts to 1890	Corrected Index of Distinction
Alabama (U. of)....	23	878	4.65—
Amherst.....	111	1880	5.90
*Beloit.....	11	311	3.68—
*Boston.....	9	270	2.95+
Bowdoin.....	61	1032	5.91—
Brown.....	67	1546	4.88
*California.....	11	421	2.37
Colby.....	24	547	4.73 ?
Columbia.....	117	1904	6.14
Columbian.....	10	236	5.07
*Cornell... ..	76	1046	6.68
*Cornell (Iowa).....	9	249	3.64—
Dartmouth.....	88	2103	4.96
Franklin-Marshall.....	13	584	2.23
Georgia (U. of).....	11	770	1.43+
Hamilton.....	54	1242	5.00
Harvard.....	369	4611	8.00
Haverford.....	19	345	5.51
*Hillsdale.....	6	352	1.78
Hobart.....	19	403	4.99
*Illinois.....	14	349	3.80
Indiana.....	19	495	3.84—
*Kentucky (U. of)....	6	99	5.94 ?
Marietta.....	13	396	3.21—
Mercer.....	6	452	1.38
*Michigan.....	125	1693	7.55
Middlebury.....	19	366	5.19
*Missouri.....	12	489	2.50
Oberlin.....	35	727	4.81
*Ohio Wesleyan.....	25	879	2.89—
Pennsylvania (U. of)...	90	1153	8.97—
Princeton.....	132	2779	4.99
*Rochester.....	45	761	6.16
Rutgers.....	16	790	2.03+
*Syracuse.....	11	620	1.41
Tennessee (U. of).....	8	144	5.76
Trinity.....	33	564	6.45
*Tufts.....	10	387	2.61
Union.....	68	1695	4.42
Vermont.....	22	420	5.24
Wabash.....	15	424	3.89
Wesleyan.....	50	947	5.28—
Western Reserve.....	10	332	2.08
Williams.....	91	1371	6.44
*Wisconsin.....	28	657	4.43
*Wittenberg.....	6	302	2.07
Yale.....	327	3585	7.21

* Colleges marked thus (*) do not date back as far as 1840, and to their ratios of distinction has been applied an appropriate (and yet less certain) correction, to make them as comparable as possible with the older colleges

This table could readily be extended to include other institutions and with no modification of its interpretation; its limitation is largely accidental, due to the availability of suitable alumni lists. In the main, it is representative because it

omits rather few of the most important colleges and includes a sufficient variety of all sorts and conditions of colleges to be significant.

Using the index of distinction as a basis of classification and attempting to use it, not mechanically but judiciously, I should be disposed to divide the colleges into the following groups:

TABLE II

GROUP A	GROUP B	GROUP C	GROUP D
Columbia.....6.14+	Trinity.....6.45	Wabash.....3.84	California.....2.37
Cornell.....6.68	Williams.....6.44	Indiana.....3.84	Frank-Marsh.....2.23
Harvard.....8.00	Rochester.....6.16	Illinois.....3.80	West Reserve.....2.08
Michigan.....7.55	(Kentucky).....5.94	Beloit.....3.68	Rutgers.....2.03
Penna.....8.97-	Bowdoin.....5.91	Cornell (Ia.).....3.64	Wittenberg.....2.07
Yale.....7.21	Amherst.....5.90	Marietta.....3.21	Hill-dale.....1.78
	(Tennessee).....5.76	Boston.....3.95	Georgia.....1.43
	Haverford.....5.51	Ohio Wesleyan.....2.89	Syracuse.....1.41
	Wesleyan.....5.28	Tufts.....2.61	Mercer.....1.38
	Vermont.....5.24	Missouri.....2.50	
	Middlebury.....5.19		
	(Columbia).....5.07		
	Hamilton.....5.00		
	Princeton.....4.99		
	Hobart.....4.99		
	Dartmouth.....4.96		
	Brown.....4.88		
	Oberlin.....4.81		
	Colby.....4.73		
	Alabama.....4.65		
	Wisconsin.....4.43		
	Union.....4.42		
Group A: Index of 6.50-8.50 6 in group Av. Index 7.42	Group B: Index of 4.50 (4.40)-6.50 22 in group Av. Index 5.30	Group C: Index of 2.50-4.50 10 in group Av. Index 3.30	Group D: Index of 2.50 and below 9 in group Av. Index 1.86

Group A contains the small handful of the most distinguished colleges, that is, those having the highest index of distinction according to the method here adopted. To further emphasize the fact that the precise numbers thus appearing in the table are not significant, but only their general and relative positions in the scale, I have arranged this small group A alphabetically. In regard to two of the universities there included, a word of comment is necessary. I know that the ratio for the University of Pennsylvania as given is too high; but I have no certain method of estimating to what extent the methods of correction used have favored this institution. I feel confident, however, that the amount of correction for the uncertain element in this figure is not sufficient to take it out of the high grade in which it is now placed. Similarly, I have included in this list Columbia University, altho its ratio falls somewhat below the minimum

index of distinction required for admission to Group A. In this case I have equally good evidence that the ratio of Columbia University is too low, owing to the fact that a considerable number of graduates of its School of Mines have been included without a proportional increase in the *Who's who* list. It would not, of course, be fair to throw out the graduates of the School of Mines entirely, unless one were able to separate in the *Who's who* volume the graduates of Columbia University that are graduates in Arts from those that are graduates of its scientific school. As this cannot be done, I have no resource except to indicate that the resulting ratio from the inclusion of the body of graduates in science makes the resulting index of distinction too low, and that any fair correction would at once bring Columbia well up within the "A" list. I mention this as an example of the uncertain influences attaching to a comparison of this kind, in order to prevent readers who may be particularly interested in the welfare of certain colleges or universities from indulging in comparisons that are proverbially odious, and in this case unwise; no such invidious distinctions should be based upon particular numbers, which, in this necessarily approximate method of estimation, happen to express the fate of their favorite universities.

Group B represents the largest number of well-standing colleges; and this group it seemed proper to arrange in order of their indices of distinction, remembering always that the precise number is affected with sufficient uncertainty to deprive its position in the group of any detailed significance. I have also placed in parentheses those institutions in this and the following groups, to which, for some reason or other, there attaches some special uncertainty in regard to the value of its index of distinction. The most frequent cause of this special uncertainty is the small number of mentions in *Who's who*, upon which the ratio is based. I have separated Group C from Group B partially with reference to an arbitrary limit, or by reason of the fact that there does seem a moderate gap at this point in the series of ratios that I have obtained. Group D is the result of an artificial division.

While I was at work upon this investigation, there appeared an article by Professor Dexter in the *World's work* for April, 1903, covering precisely the same investigation. He has attempted to answer the question—What is the best college? and comes to the conclusion that the best college is the small non-sectarian college for men in New England, in towns of more than thirty thousand inhabitants. While I have above recognized the value of several of Professor Dexter's studies in educational statistics, I am compelled at this point to use his article as the basis of criticism, to enforce a position which in many ways is the most important conclusion from this study. That position emphasizes the necessity in educational statistics, of securing appropriate data and then of manipulating them, not mechanically, but with constant reference to the conditions in which these data have their origin. Professor Dexter has in the main taken his estimates of the numbers of living graduates of the several colleges from the information given in the New York World's Almanac. This information is the result of a circular letter issued by the editors of the Almanac and addressed to the colleges of the country. It is probably usually filled out by someone in the executive office of the university, at times according to accurate statistics, if such are available, but far more frequently according to estimates and guesswork. I have examined very carefully the series of estimates in the World's Almanac for a number of years, and have become easily satisfied that the numbers of living graduates there recorded are *wholly unreliable*. By this I mean not merely that they are occasionally wrong, but that it is rather the exception to find them reliable, and the rule to find them quite haphazard and without regard to actual statistics. On this score alone, it seems to me that any ratio derived from such irregular estimates of the number of living graduates must be without value. In the second place, Professor Dexter has taken the total number of living graduates. Now, as such a large proportion of these are recent graduates, those institutions which have been specially successful in gathering to them a large number of students within the last decade or two, would have the denominator of their index of

distinction largely increased, with no possibility of a proportionate increase in the numerator; this would affect the various colleges differently and very unfairly. In the third place, no adequate account has been taken of the effect upon the index of distinction of the presence of technical courses. Professor Dexter's number, representing the total number of living graduates, frequently includes a very large number of those who have taken technical degrees, and in other institutions includes none of these at all. The effect of this is to place at a great disadvantage those institutions which have large technical courses; for in their cases it can be shown that the proportion of their representation in *Who's who* in the departments of Engineering will not be as large as that in the departments of Arts. Furthermore, in the fourth place, Professor Dexter's method of allowing for the presence of the coeducational factor, tho approximate, is not adequate. It still reacts to the disadvantage of the coeducational institution. The only fair method is to exclude this factor absolutely.

These four sources of error are so much more important than any others in Professor Dexter's investigation that it seems to me unnecessary to go into any more explicit criticism. It would appear that Professor Dexter's conclusion in regard to the distinction of the small New England college is wholly erroneous, and the reason why these small New England colleges stand at the head of his statistical list is due almost entirely to the fact that the *errors incident to his method of comparison do not affect the older, small New England colleges*; for those are the colleges that have been increasing rather steadily, that have in the main only departments of Arts, are non-coeducational and for which fairly accurate records have been maintained.

Professor Dexter's further division of colleges according to their present attendance, which presents some advantage in favor of the smaller college, is again misleading, because it is not fair to say that a college is small or large according to its present attendance, and at the same time to include the number of its alumni as one factor of this comparison. Many of these colleges are fairly small in attendance now, because so many

other colleges have come forward with larger attendance; yet they were in their day the larger colleges; and the number of their living alumni is very much larger than the number of living alumni of these younger institutions. In other words, the term "large college" may mean present attendance; and it may mean number of living alumni; accordingly, while the comparison as given by Professor Dexter on the assumption (in this case not a fair one) that his data are valid, would be legitimate, it is on the whole meaningless. The same criticism may be applied with variable force to his distinction between sectarian and non-sectarian, between those situated in towns over thirty thousand and those of less than thirty thousand, and between the geographical positions. In other words, these comparisons, even with reliable data, would be relatively meaningless, because the essential factors that make one college different from another and accordingly may be supposed to affect its index of distinction, are so complex that no special stress can be laid upon such single factors as the sectarian character, geographical position, present size, and the like. To express these objections differently, one may say that these distinctions are not the essential distinctions between the colleges. The conclusion that stands out most sharply in Professor Dexter's result is that in favor of the New England college as compared with the groups of Southern, Middle, Central, or Western colleges. That this group of differences is really significant, no one can doubt; but its significance is a complex one, owing to the variety of factors that make the best of New England colleges different from those of the South and West. The geographical location is not the key to solution of the differences.⁶

Confining the attention to my groups above enumerated, and attempting to draw from them some general conclusions, it is obvious at once that the most distinguished colleges come from the group of the largest colleges. Group A includes in many senses those which have continuously been the most

⁶ In my own data the several groups do not differentiate readily on the lines of cleavage investigated by Professor Dexter, except when (as in the case of coeducation), these carry with them other and older and more notably significant differentia.

prominent and most prosperous institutions in their environment. Harvard and Yale, that have so long maintained the highest standard of scholarship as well as the other factors of a great reputation, we naturally expect to appear here. We find also Columbia and Pennsylvania, and we find two of the most vigorous of the Middle and Western institutions that have within comparatively short times and in favorable environments made a distinct reputation, Michigan and Cornell. I have already indicated that the varied histories of these institutions would prevent any formal and mechanical individual (and invidious) comparison among them. I merely add that the youth of Cornell is distinctly in its favor as regards the index of distinction (to a distinctly lesser degree is this true of Michigan), because it has been in existence just long enough to have most of its alumni still in the prime of life, to have lost relatively few by death, and thus to present the most favorable period for inclusion in *Who's who*.

As to the second group of favorable distinguished colleges, it presents a considerable variety. It first and foremost presents a group of colleges that maintain the best traditions of the older and smaller colleges. Among these one would naturally mention Williams, Amherst, Dartmouth, Brown, Hamilton, Wesleyan, Bowdoin, and others. In connection with these there appear other institutions of a different type, that represent relatively the best of their type in their own environment, such as Oberlin, Wisconsin, Rochester, Vermont; and it includes a few others which probably come into this group more or less accidentally, owing to the uncertainty of the index of distinction, due to the effect of the small numbers upon which it is based. The one exception to this characterization is that of Princeton, which must not be considered as a very decided exception, owing to the very large number of its alumni. I must content myself with the expression of the fact that the ratio for Princeton, tho probably too low, presents no basis for a more proper estimation. It is low because of the very large number of its living alumni.

This is as appropriate an opportunity as will occur, to in-

dicating the status as to distinction of certain institutions not strictly included in the colleges here considered. In regard to the status of women with reference to collegiate education as well as to distinction of the *Who's who* type, there is no basis of comparison with that of the men. The recentness of any general college education for women decreases the possibility of a fair comparison. The most accurate records available for this comparison are those of Vassar, Smith, and Wellesley; the index of distinction of these is about the same as that of Group D for the men, nor is there any decided difference among the three. Furthermore, the third edition of *Who's who* informs us that, proportionately, there are less than half as many of the women mentioned in this volume who have taken a collegiate degree than of men; while there are nearly three times as many women (relatively) than men whose education closed at the secondary schools. This indicates that the type of women who secure mention in *Who's who* is in considerable measure a different type from the class of men. This is further shown by the fact that there are decidedly more young women (relatively) than young men in *Who's who*—a fact that suggests a series of influences that lead to a fair degree of feminine publicity, such as the stage, the musical professions, and popular literature afford. At all events, it seems best to confine the main conclusions of the present study to men, and to recognize the reasons therefor in the diversity of interests, education, and mode of gaining distinction open to the two sexes.

It is also interesting to add that statistics are available showing the index of distinction for the U. S. Military and for the Naval Academy. The statistics are probably as accurate as any of the others and bring these institutions almost exactly at the average of Class A of the colleges. Yet it must be remembered that *Who's who*, by the manner of its composition, necessarily includes a considerable number of military and naval men on account of official position and apart from individual merit. This may go moderately or decidedly to diminish their rank in any fair comparison with college men. I also have the ratio for what may be regarded as the technical

institution most nearly comparable with the colleges of highest standing—the Massachusetts Institute of Technology; and its ratio comes just at the bottom of Class A. I have, however, convincing evidence that this ratio is higher than for any similar department connected with a college; and I have repeatedly called attention to the fact that the larger the technical departments the lower will be (*ceteris paribus*) the index of distinction for the institution, or in other words, that the proportionate number of engineering graduates to achieve a *Who's who* type of distinction is considerably less than among graduates in arts.

The third group includes a considerable number of state institutions and other institutions in the Middle West, and rather interestingly, two of the less notable institutions in Massachusetts. Group D is again miscellaneous, and represents those institutions (some of them institutions of wholly unlike character) concerning which very little need be said, except possibly the fact that many of them represent a type of small college somewhat different from those represented in Group B. In other words, the discussion of these institutions by groups suggests certain distinctive tendencies, without making legitimate any more specific comparison. It is rather one's judicial estimate of the merits and reputation of these various groups of institutions that would lead one to draw conclusions as to what type of college really gives one the best chance for the *Who's who* measure of distinction. And yet there is no greater vagueness attaching to this conclusion than the complex nature of the data would lead one to expect. There remains the noticeable impression in reading these lists that each successive group suggests a difference of reputation. It does this not uniformly and rigidly, but in the mass effect of the list as a whole. It conveys the impression still more distinctively when one considers not the present reputation alone, but the reputation thru the period from which the greater number of the enrollment of *Who's who* has been drawn. It presents what is unavoidable in the irregular diversity of our colleges and universities, a considerable variety of types of institutions within the same

class; but, on the whole, it carries as positive and significant an indication of the true differentia of distinction as distributed among the colleges of America as could be anticipated from the available data.

There is, furthermore, a very adequate reason why a more precise discussion of these groups would be unwarranted; this must now be considered in detail. While it has been assumed that the mention in *Who's who* is on the whole a fairly worthy and certainly the best accessible measure of distinction, yet the nature of what this distinction represents and of its distribution must now be analyzed. The main interpretation to be given to the comparative collegiate distinction seems to me then to be this; that those institutions rank best in regard to their index of distinction that have the widest and most honorable and influential reputations. It is not wholly, and probably not mainly, because Harvard and Yale and Michigan and Cornell so prepare the young man committed to their charge that his chances for future distinction are very decidedly increased by his four years' residence under one environment or another; but on the other hand, that the type of young man, who, no matter to which college he happens to go, is more likely than his associates to achieve distinction in after life, is attracted in larger numbers to Yale and Harvard and Michigan and Cornell than to other institutions. This is but another phase of the ever-present question of the effectiveness of heredity and environment, of nature and nurture.

It is rather a superficial conclusion to infer that attendance at a given college for four years has been the influence which has made future distinction possible. It seems far more in accordance with what we otherwise know of the influences that tend to distinction, to conclude that to a fair extent the young man of good parts, who is likely to make a name for himself, no matter what his specific preparation for life may be, is attracted to a certain type of college rather than to another. Furthermore, that the hereditarily gifted, and those who obey the traditions of the most cultured portions of the commonwealth, choose their college, and thus confer upon the chosen college a likely candidate for the *Who's who* grade

of distinction, largely upon the reputation and traditions of the colleges concerned. According to this view, then, the index of distinction becomes almost an index of reputation for the various colleges. I have no doubt that it is both, and that each reader must be left to decide for himself what division of influence he will attribute to the nature of the young men that are attracted to or can easily reach certain institutions, and what to the nurture which they there receive.

Our next consideration must be with reference to the make-up of *Who's who*. It may very well be that the editors of this volume, whether consciously or unconsciously, have preferred certain types of distinction; and accordingly, if those types of distinction are the ones that are most likely to be the outcome of the careers of college graduates in Arts, then it follows that such colleges as fall in line most closely with careers of this type would be relatively favored. Indeed, Professor Dexter very adequately shows that the distribution of men mentioned in *Who's who* according to the professions which they pursue gives rise to very suggestive comparisons. Professor Dexter has compared the proportion of the various occupations and professions with the proportion in each profession that succeed in procuring a mention in *Who's who*. He finds, for example, that the business man has the smallest representation relative to his numbers in the *Who's who* volume, and that the college professor and the man of science (as well as the musician) have very large representation. This of course may mean that the college career is a great help for gaining future distinction, a result that can hardly be disputed; but at the same time, one must bear in mind that the compilers of *Who's who* have been more liberal towards men who have made reputations as teachers or as men of science than toward the large number of business men who have no ready chance of establishing the kind of reputation that is likely to be recognized by *Who's who*. This the publishers have acknowledged and have attempted to modify in later editions. In brief, this discussion may, if we feel so disposed, be interpreted as an actual discussion of the value of a college education for certain professions; and it may also be interpreted as a criticism upon the manner of

recognition which has been adopted by the compilers of *Who's who*. There are many who would urge with good reason that the proportion of eminent business men, men of decided and unusual ability, whose names should appear in *Who's who*, but do not appear, is quite sufficient to destroy the value of the comparisons that naturally would be made. An incidental fact that bears upon this point has been furnished me by an industrious contributor to the daily press. He has investigated the biographical mention of the "captains of industry" and of the others who were invited to meet Prince Henry of Prussia at the noted dinner in New York, and found that of the ninety-two there assembled, there were thirty who were *not* named in *Who's who* and that of the sixty-two who were so named, forty were graduates of colleges. It is certainly striking that so large a proportion of those that were selected for this most exclusive honor should not appear in the current American biography; it indicates, in brief, that the mode of selection for purpose of distinction will have a very serious effect upon any comparisons that may be deduced.

I have attempted to apply a further test of the distribution of ability amongst the colleges of America by tabulating the proportion of the members of the Faculties of the important colleges who appear in *Who's who*, and also by taking account of the distribution of the colleges of which these more eminent members of Faculties are graduates. As in the former comparison, the inequalities of the colleges in regard to their proportionate provisions as to the instructional force, prevents the comparison from acquiring a fair and definite value. In other words, those colleges that provide most liberally for a large teaching force—a provision that necessarily includes a considerable number of young assistants and instructors, who have as yet no opportunity to become enrolled in *Who's who*—will naturally show a relatively small percentage of *Who's who* enrollment; while institutions that have a rather limited instructional force composed mainly of older men, will be favored in this comparison. So much does this irregularity affect the results that it becomes a matter of individual judgment to determine whether a given ratio is more significant by reason of the numerator (that is, the number of Faculty

members who have gained the *Who's who* distinction), or by reason of the denominator (the liberality of provision of the institution for instructional purposes). To this irregularity there is added a further serious factor, namely: that when this numerator is itself small (and the denominator likewise small) an accidental enumeration of one or two Faculty members will very materially change the ratio concerned. Lastly it should be noted that there are institutions falling in the Classes B, C, and D, that in spite of ranking fairly, or well, as to their index of distinction—which means the distinction of their graduates—have practically no representative amongst their present Faculties in *Who's who*. On account of these several difficulties, the resulting comparison is negative in character, tho not wholly so. It indicates that Class A is also the class that presents the most uniformly and regularly large representation of their Faculties in *Who's who*, the average being about one representative for every eight members of the Faculty. Individual comparisons within Class A would be entirely inappropriate. Class B presents the widest variations due to the influences just discussed; so that its average loses significance. On the whole, it ranks only slightly less in this matter of Faculty distribution than does Class A, the most notable detail being the high position of Princeton University in this group. On the other hand the very decided lack of *Who's who* distinction among the college groups C and D is an unmistakable evidence that the Faculties of these less notable institutions are themselves less notable. Numbers are again rather meaningless, tho it is fair enough to say that the proportionate representation in *Who's who* of the Faculties of Classes C and D is less than half of that of the two upper classes. The manner and measure in which the present "distinction" of the important institutions of the country tallies with the distribution of distinction among their living alumni is thus set forth as adequately as the data will permit.

Turning to the consideration of the institutions at which the Faculty representatives in *Who's who* have taken their baccalaureate degrees, we find, limiting the institutions enumerated to the twenty-five that have the largest actual representation, the following list:

Harvard.....	92	Williams.....	18	Union....	9
Yale.....	91	Mass. Tech.....	16	Nebraska.....	8
Michigan.....	48	Pennsylvania....	16	Hamilton.....	7
Amherst.....	40	Bowdoin.....	12	California ..	7
Princeton... ..	34	New York.....	12	Alabama.....	7
Cornell.....	30	Wesleyan.....	12	Virginia.....	7
Columbia....	30	Dartmouth.....	11	Oberlin.....	6
Brown.....	22	Wisconsin.....	10	Haverford.....	6
		Rochester.....	10		

These numbers would become significant only in terms of the actual living alumni of these institutions and in terms of the proportion among these who have chosen the professorial career. The list is given to indicate in what measure this test of the distribution of distinction corresponds with those other comparisons already considered. While noting certain variations in position within this list, one is more decidedly impressed with the conclusion that those institutions that have already been shown to rank high in "alumni" distinction, also contribute in more notable measure than others to the distinguished members of the Faculties of present-day universities.

It is undoubtedly regrettable that attempts to determine by objective tests the far-reaching effects of general educational conditions should be embarrassed by so many and such complex allowances, estimations, corrections, and defections. Yet such is the case; and whoever applies the statistical solution to educational data must hold constantly and scrupulously in mind the real relations that such statistics so imperfectly display. Under such manipulation, conclusions of no slight interest and value seem suggested with sufficient certainty to affect our conceptions of the effectiveness of educational influences. It is because the present study seems to exemplify the manner in which statistical material may illuminate—even if as a side-light only—the trend of such relations between educational equipment and honorable achievement, that it has seemed worth while to present with some fullness what is thus determinable in regard to the distribution of distinction in American colleges.

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IV

WHAT THE UNIVERSITY LOSES BY UNDERPAY- ING ITS INSTRUCTORS ¹

The question of the salary of college professors seems, on the surface, to concern only a restricted class of men, and, for that reason, not to merit widespread attention. When one considers, however, that this small number determines, or should determine, the intellectual development of generation after generation of students who, in turn, influence the country at large, one realizes that it is a tremendous factor in the formation of the intellectual cast of the nation. The average shortsighted American mind deals readily only with matters immediately before it, converting it into terms of dollars and cents, and is incapable of nicely estimating the value of such intangible matters as scholarship and education. To the thinking mind, however, these are vital questions, and to such a mind it must be a real and serious problem whether a college carries on its work successfully or not. The success of a college professor's work must depend on his salary in part, especially as he is necessarily a member of a community where the cost of living is higher than in ordinary communities.

We are awakening to the fact that we must have efficient instruction in our colleges and universities. Thus Mr. Carnegie makes provision for the substitution of younger minds and energies in the place of the older professors whose powers have been weakened by age. The root of the matter of efficient instruction lies, however, not in the older professor, but in the younger one. My desire is to call attention to the col-

¹ Since the completion of this article, the annual report of President Schurman of Cornell University has appeared. This report, calling attention to the very themes that are discussed in the present instance, namely the slow promotion of the instructor, his heavy classroom work, his inability to find time for scholarly investigation, and the loss to education and to the nation thereby, shows emphatically that prominent educators are keenly realizing the seriousness of the situation.

lege instructor, who is some time to take the old man's place, and to show that if he continues to be hampered by a salary which is insufficient for living expenses, he will reflect little glory on American scholarship, either in the professor's chair or as a more humble member of the university body.

We are apt to give and spend money for the external thing. So, as is well known, continual donations are made for handsome college buildings, not for the support of skilled men to give the buildings their supreme value. When we look at the external appearance of the newer American universities, then at the modest buildings of a foreign university like Heidelberg, and thereupon compare the yearly output of thought in each institution, we realize that the external shell has little to do with actual learning. How easily, too, is money obtained for athletics, which in its present form, at least, is very remotely connected with the university proper, except as a means of advertisement. Henry Beach Needham, from whom I quote, has given us some startling figures in regard to athletics. The steel and concrete stadium for football built at Harvard, not yet finished, has already cost over a quarter of a million. The revenues from athletics at Yale amounted in 1904 to \$106,396.66. There are "luxurious expenditures in athletic management at the large universities. Nothing is too good for the men who fight and bleed for their university. The money pours in." Columbia has paid a salary of \$5000 to a football coach, and most large universities pay their coaches a salary that a professor would accept gladly. Compare this salary of thousands for coaches whose training is as nothing, with the case of a doctor of philosophy of my acquaintance, a young man of about thirty-two, with a wife and child, who had just attained his degree after years of study and some teaching. In consulting with the authorities of one of the smaller colleges of the East, in regard to an instructorship, he was told that unless he had means of his own to depend upon, they felt that they could not appoint him. In another college in the Middle West, he was met in just the same way. Surely something is out of joint. If manual labor receives starveling wages we raise a hue and cry until

public opinion or strikes compel living wages. Mental labor, which must be freer from care than manual labor, is left to its own devices, and for it there exist neither public opinion nor strikes.

It must not be forgotten that the teacher loves his work better than riches or he would not enter this poorly paid profession. It must likewise be remembered that while he usually cares less for material luxuries, he has perforce, and by his very character and profession, actual needs which partake of the nature of luxuries. Nor can his standard of living be compared with that of a grocery clerk or a bricklayer, or, indeed an ordinary business man, to whom, in truth, books and travel are distant, uncomprehended, and unnecessary things. The instructor's needs must rather be estimated entirely by the calling and community which he serves, and by the work he has to do.

The instruction in a college or university is in the hands of officers of several ranks, bearing, usually, the titles of professor, assistant professor, and instructor. The salary of a professor in a large university is, usually, from \$2500 to \$3500, correspondingly less and as low as \$1500 in a smaller institution, and greater in a very few of the largest universities, such as Chicago and Harvard. In these, such salaries may be one hundred per cent. greater than in the other leading universities. An instructor receives, usually, a salary from \$750 to \$1000, which sometimes reaches a minimum of \$500, and, exceptionally, a maximum of \$1200.

"G. H. M.", in the *Atlantic monthly* for May, basing his calculations on college conditions, finds the average expenses of a small family, including saving towards old age, to be about \$3150. Thus, even a salary of \$3000, the average amount which a professor receives at a large university, is barely sufficient for comfortable simple living in a college community and for a slight cultivation of those tastes and an occasional indulgence of those needs which are absolutely necessary to the persons of culture which we demand the instructors of young manhood and young womanhood to be. But the question is, at what time of life does one reach that

rank and that ability to live comfortably? What does the life of a scholar and a teacher mean while he is reaching that stage? Shall an instructor, entering upon his career at the age of twenty-five or twenty-eight, be content in the thought that in perhaps ten, fifteen, or twenty years he may really begin to live? Shall he in the meantime dispense, not only with luxuries, but with real necessities, also with a home, a wife, and children? Is celibacy really demanded of him? In these days, when our strenuous President has made "race suicide" such a familiar term and subject of discussion, a mere mention of those words in connection with the matter under consideration is sufficient fully to explain this aspect of the question. But the essential point is really this. Mental work requires close concentration and freedom from care. If an instructor's mind is laden with questions as to whether the next month's salary will pay the butcher and grocer bills, whether the next two months' salary will suffice for the expenses of the birth of his child, whether he will be able to live thru the coming summer without tutoring, what his wife and child would do with the meager \$1000 of his life insurance, in case he should die, he cannot turn with enthusiasm to researches which are to increase the sum total of human knowledge and benefit the coming ages. Nor, indeed, will he stand cheerfully before a class of lounging six-footers to waken in them a feeling for the artist's meaning in a picture or for the poet's interpretation of the relation of God and man. Even chopping wood or mending roads would be more real relief from pressing cares than this. There is all this cry of commercialism—commercialism in athletics, in politics, in religion. How can ideals be substituted for commercialism if the promoter of ideals, the educator, is himself held fast in the octopus arms of the almighty dollar?

Let us consider the facts in the case of an instructor. My observations are drawn, for the most part, from personal experience in one of the largest universities in the East. It is now generally and rightfully required that an instructor have the degree of doctor of philosophy from some eminent institution of learning. This demand is an encouraging sign of the

advancement of our ideals of scholarship. What does this degree require in regard to time and expense? Its attainment means at least three or four years of study after the completion of the undergraduate course. This period in many cases includes necessary travel and study abroad. During this time the student lives at his own expense or that of his parents, or he contracts debts by borrowing money with which to pay his way. Often he interrupts his course by several years in order to earn the means to continue his studies, thus lengthening the already long period of preparation. When he attains the degree he is from twenty-five to thirty years old. At an age when men in business are earning enough to support themselves and a family, the instructor begins with a salary of from \$500 to \$750, which is perhaps advanced after a year or two to \$1000, but in most cases remains at that point so long as he remains an instructor. If he marries, it is his own affair, and no change in salary occurs. Curiously enough, in this matter the argument falls flat which is used in secondary schools and in colleges in regard to women's salaries, where a man receives from twenty to one hundred per cent. more than a woman because he is expected to support a family.

Now, in the first place, what is the work that an instructor does for such a meager compensation? He has usually fifteen or eighteen hours of recitation work, in small institutions often more, and generally about twice as many hours as a professor has. In most cases, this is elementary work, which is not only the least congenial, but is arduous and exhausting to teach. It is fair enough that the instructor should have a large share of this work, but not that he should be overburdened with a time- and strength-robbing occupation. In many cases, he has, besides heavy elementary work, special courses in graduate work, for which he receives neither an additional title, nor additional remuneration. He needs his time and energy for making himself more and more fit for his profession, for study and especially for research, by which he must prove to the world his worth as a scholar. This he must do, first, to be respected; second, to be promoted. Under the present conditions it is hardly possible for him to progress.

What little spare time he has is liable to be taken up with extraneous work in an effort to help out his low salary. Such work is usually tutoring, more of that same elementary and uncongenial work of which he already has a large share, and which exhausts the mental and physical energy which should go towards his profession. As a result, when he reaches maturity, he is not a ripe scholar, but one of those weak, poorly prepared teachers in whom our college faculties everywhere abound. It is for this reason that we have frequent cause to blush when a scholar from a French or German university visits our shores and detects the hollowness of a professor's title in America. We cannot see, with our national shortsightedness in matters of the spirit, that the real education of the people depends upon a high type of culture among the few at the head. We do not recognize the truth of Matthew Arnold's position when he quotes M. Renan, who says: "The sound instruction of the people is an effect of the high culture of certain classes. The countries which, like the United States, have created a considerable popular instruction without any serious higher instruction, will long have to expiate this fault by their intellectual mediocrity, their vulgarity of manners, their superficial spirit, their lack of general intelligence."

Secondly, what is the life that an instructor is expected to lead, especially if he be married?

As a part of the college community, he must live in accordance with its ideals and observances. He, and especially his wife, are expected to dress reasonably well, to attend concerts and lectures, not to mention athletic games, to support numerous college activities and various charitable movements. All this he would gladly do, but for a married instructor with a salary of \$1000 it is impossible. In regard to dress, he and his wife must often lack the necessities for comfort, not to mention those items which please the eye. Is it an uncommon sight to see worn shoes and a threadbare coat on an instructor, and on his wife gowns and hats which have seen many seasons, and have been turned and changed again and again? They look like quite a different species from the

average nobby student in a large university. Attendance at college games where the entrance fees are \$.75, \$1.00, and \$1.50, must be left out of the instructor's consideration entirely. I ask, is it beneficial for the student body that the instructors are forced to withdraw almost entirely from some of their main interests? Would not the general tone be improved if the students could mix naturally and freely with men of higher ideals, wider experience, and riper judgment, instead of being left almost entirely to their unrestrained and unguided impulses? Again, the instructor must dispense with theaters and concerts, except, perhaps, once or twice a year, and, even then, pleasure is intermingled with pangs of conscience. Contributions to charity, the instructor cannot think of. Most college instructors believe in the "simple life," but in college towns even the simple life is an expensive matter. For he cannot live in a hovel. A few rooms in a respectable neighborhood may require an expenditure of \$25 a month or \$300 a year, for rent. Living most economically, he and his wife spend about \$5.00 a week for food, about \$250 a year. Thus, the bare living takes up more than half his income. Yet these items are only two out of the thirty-one occurring in the expense account as "G. H. M." presents it. Among the other necessary expenditures are those for life insurance, which, to be worth while, must be at least \$150 or \$200 a year. For the \$250 or \$300 that remain of his salary, the countless other things must be provided for, including apparel, books, household and personal expenses, car-fare, postage, and the hundred little items which so soon swell into a large account. Of course, the instructor's wife is cook and servant. Usually they are very anxious to come into close contact with the students by entertaining them. Plainly this cannot be done satisfactorily if one lives in two rooms, in an attic, or on the outskirts of the town, and when one is entirely without servants.

Then there is the exceedingly important matter of travel. If the instructor travels at all, it is an absolutely hopeless matter to live within his salary. One is apt to think of travel as a luxury. For a college instructor, it is, in most cases,

a necessity, and as vital a factor to him as the stock in trade is to a merchant, or as tools are to the carpenter or the mason, not to mention the brushes and paints of the artist. Leaving aside the desirability of abandoning the scene of one's labors for a few weeks of refreshment and strengthening in the summer, it is eminently necessary, first of all, for the instructor to travel to conventions. This he must do in order to come in touch with the men of his department in other institutions, to manifest interest in his work, moreover to represent his own university, altho the university would not dream of providing and paying for this necessary representation. It might even be said that it is as necessary for a university to be represented and advertised in the meeting of a learned body as it is necessary to have its football team represent it in athletic contests. Another motive in attending these meetings is the necessity of appearing before the representatives of the various institutions as a candidate for advancement, a motive that is not entirely laudable, but is born of the instinct of self-preservation. These journeys, which often necessitate traveling over one-third or one-half the continent, are costly. For instructors in history and the modern languages are added the enormous expenses incurred by additional study and travel abroad. An instructor must undertake these journeys in order to keep himself fit for his work and abreast of the times, and to prevent himself from going backward, the only alternative. This very important fact is ignored by the large class who look upon the professor's work as meaning only a few hours of instruction a week and for the rest, leisure.

University work necessarily depends on books. Unless the instructor has the advantage of the use of an exceptionally fine university library, he must buy books. In any case there are many works which he must have on hand always. How much of the salary of \$1000 is left for these?

Now what is the effect of all these limitations on education, first as regards the instructor himself, then the profession, and, finally, the student?

In regard to the instructor, the most important point has already been emphasized, namely, that he cannot become a

broad scholar. As his salary is insufficient, he must find outside employment, usually slavish tutoring, so that he may earn enough to make ends meet. This time and strength he would gladly give at least to the students, if not to scholarly work. Not only is the instructor robbed of his time by these harmful conditions, but with them come care and anxiety of mind, then discouragement. The next step is a loss of self-respect, and a feeling of slavery.

Secondly, what is the effect of these low salaries on the profession? Plainly, it lowers its dignity. It ought to be an inspired field of work. Will inspiration endure in the face of such a sordid obstacle? Will not only the heartless, ambitionless, those fit for nothing else drift into it as a last resort? Or shall it become so un-American a profession as to be open only to persons of means? Are such always the best scholars and teachers?

Thirdly, what is the effect of the present system of salaries on the student? In the first place, a discouraged, uninspired instructor is deleterious to the student's education. If anyone needs careful training it is the American college student. He comes poorly prepared as a result of our undeveloped system of schools. He has not been trained to think, and not been made to work. A teacher is necessary who will inspire him, urge him on, supply a real interest in things intellectual. The young man has the prevalent notion of the desirability of turning everything he learns into dollars and cents. An enthusiastic, healthy, respected teacher is needed to combat that feeling, unless, indeed, we Americans are all ready to affirm that education has no farther use than for money-making. A reverence for scholarliness for its own sake is not inherent in the American boy. He is not taught with the Japanese youth to regard his parents as the moon, but his teacher as the sun. He looks for other things, also, in the teacher he would respect. We can hardly blame him if he looks with contempt on the professor or instructor who cannot take part in the various enterprises that the student supports, because he has not the means. Must he not pity a little him who walks poorly clad by the side of the well-fed, well-groomed student?

Can he help feeling that he need not respect him whom his elders, the persons in authority, the institution apparently do not honor? Is it a wonder that he comes to look upon the instructor as one whom he hires for service? Surely such ideas are not beneficial to the student. When we consider what little room there is for personal influence in the machine system of our universities, and then add the distance made between the teacher and the student by conditions of salary, we realize what a great cleft exists between the instructor and the instructed; and again I ask, should this cleft exist, and should the most inspiring influence in young lives, the intimate intercourse with persons of mature judgment and of enthusiasm for things of the mind and of the spirit, be set aside as of no value?

The idea of advancing salaries of instructors may be opposed by the argument that Germany holds a high rank for scholarliness, yet instructors there are paid merely nominal salaries, and often none at all. To this we respond that such an instructor also has only nominal duties. No actual work is required of him, he has no teaching or drilling to do. Instead, he has the privilege of giving a limited number of lectures a week. These lectures are usually based on the subject in which he is especially interested. He has much leisure which he employs in research; this research brings him a name, and with it a position. The American instructor, as has been shown, has practically no time for research, and spends all his energy in actual class-work. An unpleasant feature in German university life is the marrying for money and position. We are well in the way of encouraging this custom here. In Germany there is a distinction between the scholar and the teacher. The German instructor in a university represents the scholarly activity. The function of teaching devolves upon the instructor in the gymnasium. In a gymnasium the teacher has many hours of work, but he can depend upon a fixed salary which increases steadily, and a liberal pension after death or at the age of retirement. On the instructor in America devolve both functions. He has, however, neither the advantage of time for research, nor of a

competent salary, nor the feeling of security that goes with a life position, and which the German teacher enjoys. Altho it is recognized that we need in our universities both the scholar and the teacher, demands are usually made for a proof of scholarship before advancement, without a thought of the limited time allowed for such work by the system of the university, while a special gift in teaching receives no consideration whatever in the question of position or salary. As far as the financial condition of full professors in Germany is concerned, it compares most favorably with that of a full professor here. But, after all, we do not care so much what conditions are in Germany, but rather that things are as they should be in America. A most favorable state of affairs exists at Harvard which might be imitated, with the mutual profit of the university and of the instructor in many of our other institutions. There an instructor receives \$250 for every three hours of instruction. An instructor teaching fifteen hours, the average amount, would thus receive \$1250 a year, 25 per cent. more than the usual maximum salary of an instructor. If he has fewer hours and correspondingly less salary, he has so much more time for study, while the expense to the university is in either case the same.

The rank of professor, or even of assistant professor, is reached with a great deal of difficulty, for the reasons already mentioned, and also because in teaching, as in every other profession, there is now the keenest competition. Both intellectual and material advancement lie along a steep and stony road. University politics make the path no easier. If an instructor fails for all these reasons to rise in rank for many difficult years, shall his position not, at least, be dignified by a competent salary? Should not his increase in value to the university as a scholar and teacher, with many years of experience, be recognized by an increase of salary?

The question raised by others has been the increase of the professor's salary. If the increase were made in the instructor's salary, the average salary during the professor's life would be greater, and there would be less necessity for advancing markedly the salary of the older man, who, besides.

has already done his expensive traveling and acquired his full equipment. That more efficient and more scholarly men would be gained for our faculties in this way, I hope to have shown.

An opposing argument to the advancement of salaries might be based on the fact that modern conditions make for excessive competition, and that everything is a matter of the survival of the fittest. An instructor seeking a position and demanding a competent salary is met with the reply: "We can get all the Ph. D.'s we want for \$500 a year." On the principle of supply and demand it is just that the instructor be paid as little as he will come for. But this is the principle of the sweat-shop. It is the same selfish and shortsighted policy of spending as little as possible immediately, no matter what the final cost in money or in reputation may be, that causes the owner of filthy tenements to draw high dividends from a small investment, and infest a city with disease; that causes municipal shortsightedness to refuse the immediate expense for filtration plants, and allow contaminated water to carry away many valuable lives every year; that makes national shortsightedness avoid the expense of suitable houses, equipment, and salary for the diplomatic service at a great cost of esteem and political advantages.

Shall our universities, too, stand for sweat-shop systems and for deplorable shortsightedness?

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V

SOME ASPECTS OF EDUCATION IN ENGLAND

It was long a current statement made by English educators, and apparently with some degree of truth, that not half a dozen men in England understood the educational system of the country. Indeed, the statement might be considered wholly true since England has never had, until of late, any organization of its educational work that could properly be denominated a system. This reproach has been removed by the passage of the Education Act of 1902 and of the London Education Act of 1903—Acts that have not only given England a system of education, but that have been comprehensible to Englishmen and to foreigners alike.

The bitter opposition encountered by these Acts on the part of non-Anglicans is a matter of recent history and this opposition has not as yet subsided. But to a transatlantic observer it seems evident that they have been beneficial and that they have placed English education in a better position than it has ever before attained. The great gains that have resulted have been the evolution of an orderly system out of educational chaos, the establishment of a central educational authority, the institution of advisory committees made up of those actively engaged in educational work, the encouragement given free secondary education, and the extension of the age for the enjoyment of these educational privileges. These gains are in themselves so great that it may well seem unreasonable to discuss the shortcomings of English education. Yet the underlying problems of education are the same in all countries, while many of the details of educational management are identical in England and in those American states whose educational systems have been derived directly from that of the mother country. It may, therefore, be of help to note some of the features of English education that are in danger

of being developed in our own country unless we are warned by the experiences of our "kin across the sea."

The three features of English education that probably most impress an American observer are its commercial character, the bitterness of the struggle in regard to the teaching of religion, and the social distinctions that still lay a heavy hand on the schools. Of these three it is the commercial spirit dominating English education that first attracts attention. The most obvious illustration of this is the demand everywhere made for technical and commercial education. In Parliament, thru the press, from the platform, everywhere, the cry is heard that the alarming inroads on English manufactures and commerce that have been made by Germany can be resisted only by an education that will enable England to compete on terms of equality with those who have received a technical training. Even before "Made in Germany" called attention to the growing superiority of Germany in manufactures and in commerce, there had been a consciousness of the failure of English education to provide that technical instruction by means of which Germany had made such rapid industrial strides. The means provided for carrying out the Technical Instruction Act of 1889 was almost an accident, but it placed under the control of the county councils large funds which were used in the main to supplement this need. As a result, great technical schools everywhere sprang up with splendid equipment, large resources, and able direction. But their work was chiefly confined to evening classes attended by apprentices and others who after a day of work endeavored to supplement a defective education by evening instruction. One large technical school visited somewhat recently had thirty-five hundred names on its register, but only two hundred of these were day pupils. Thirty-two hundred of the number were engaged in some wage-earning pursuit during the day, and then, with exhausted energy, they attempted to prepare to overtake in the industrial race those whose technical education is based on a general education and who give to it full vigor of mind and of body.

The complaint is everywhere made that Germans are found

in the great banking houses, in commercial establishments, in business houses, because of their knowledge of modern languages, in which the English, with the exception of the upper classes, are so lamentably deficient. Yet to overcome this defect the English boy is taught, in an evening school, not the German language but German correspondence. He eagerly seeks the "northwest passage to the intellectual world," that will enable him to outstrip the German boy who makes haste slowly. The German boy at eighteen or nineteen leaves the *gymnasium*, the *realgymnasium*, or the *oberrealschule* where he has already learned the elements of the English or of the French language or of both; he spends two years in England perfecting his English, one year in France, and one year in Spain or in Italy, and he is then deemed ready to go into business where his linguistic attainments, based on a solid educational foundation, fit him for success.

Often, it is true, the English schools are not so much to blame for the present condition as are the great manufacturing and commercial establishments that refuse admission to boys after they are fourteen or sixteen years of age, and thus at the outset handicap the schools. But how futile are nearly all of the present efforts to give an adequate technical education was well shown in the remarks of Lord Reay at the Oxford Conference in 1893, in which he pointed out the fact that England had then nothing to compare with the Swiss Polytechnicum at Zurich or with the requirement of the study of English language made by the city of Hamburg. The most unfortunate aspect of the situation is that the majority of the English people do not apparently realize the shortsightedness of the present policy. They utterly fail to grasp the difference between a curriculum and a list of optional studies, and have only approval for the words of the headmaster of a great school when he says, "Let the business man tell us what he wants and we will arrange to meet his views." England will never gain the end she seeks—successful competition with Germany—by pressing downwards the age of specialization, by substituting evening continuation schools for regular systematic education, by placing mechanical subjects like shorthand and type-

writing on the same educational plane with the classics and mathematics, by failing to discriminate between those subjects that train the mind and those that are of immediate practical utility, by neglecting to apply the maxim, "In order to make education great we must make our educators great," by a willingness to place the arrangement of studies in the hands of business men rather than in those of competent educational advisers. She will only gain that end when she comes to love education for its own sake and not simply because it affords a means of livelihood, when she learns the absolute truth of the Biblical phrase that he that saveth his life shall lose it, and he that loseth his life shall find it.

But the commercial aspects of education are shown in other ways quite as subversive of the true interests of real education. The spirit of competition that has ruled English industries rules its education. The forms of this educational competition most obvious are the individual competition for prizes and for scholarships, and the collective competition of schools for the grants bestowed by different authorities. It is difficult for Americans, who are comparatively free from the bane of prize-earning, to understand the firm hold that the system has in England. The educational interests seem largely materialistic, for outside an extremely limited circle there is apparently little interest in education *per se*. This leads to the attempt to arouse a factitious interest by the bestowal of prizes in all educational institutions from the kindergarten thru the professional school. That person must indeed be willing to admit the inferiority of his own social position who is not invited to distribute the prizes at some annual school festival. The effects of this system of prize-giving are pernicious enough as regards the recipients themselves, but its effects on the educational system are even more disastrous. Attention is diverted from the legitimate objects of education to specious and showy accompaniments, and what should be an end in itself becomes only the means of obtaining some tangible reward. No one has spoken more truly than the late Professor Jebb when he said on this subject: "One of the greatest evils in our education, one of the most serious dangers

to it, arises from the premature narrowing of the curriculum, with a view to producing a prize-pupil in some one subject."

But even more pernicious than the prize system that has so deadening an effect on English education is the system of scholarships. This question is bound up intimately with the still larger question of free secondary education. England does not yet believe in free secondary education. The Church does not believe in it, because such education must ultimately be controlled by secular rather than by ecclesiastical influences. The vested interests of England do not believe in it, because the burden of taxation for its maintenance would fall on them. The aristocracy does not believe in it, because its establishment would mean the triumph of democracy. The classes that would be the recipients of such education do not believe in it, because they do not see that material benefits would accrue to them from it. Employers do not believe in it, because it would deprive them of much cheap labor. Even teachers often do not believe in it, because they fear that its adoption would mean an increase of expenditure and thereby the lowering of their own salaries. Doubtless boys and girls, should they formulate their own opinions, would disapprove of it, because it would mean a prolongation of distasteful work for no purpose apparent to them. No rate is so unpopular as the school rate, and probably there is more than a local application of the remark recently made, "There is not much enthusiasm for education in H——, but there is great enthusiasm for getting education at half price." The establishment of free secondary education would mean the increase of a rate already felt to be vexatious. The *Schoolmaster's year book for 1905* undoubtedly is correct in saying, "That the public generally has any enthusiasm for free education as an abstract principle is, in our opinion, unproven."

It is at this point that the system of free scholarships comes in and provides a compromise. In its origin it was intended to give a means of education to those otherwise unable to secure it. Later it became in effect a *pis aller* to provide against free secondary education. These scholarships are

worth from £20 to £80 per year and provide practically not only tuition fees, but also maintenance during the time for which they are held. The result is that the scholarship often becomes really a bribe to parents to keep their children in school, as it provides maintenance, and the time thus spent in school is often more valuable in a pecuniary way than it would be if spent in a legitimate wage-earning pursuit. For mercenary reasons a parent accepts and even rejoices in the scholarship when he would resist free education that would give tuition but not maintenance. The scholarship is a bribe offered by a school to a bright pupil to enter the school or to follow a certain line of work that he would not choose of his own accord. Thus the schools are pitted against each other in a competition that is ruinous to true education and that engenders unfortunate rivalries among the schools as well as among the pupils. The system becomes a two-edged sword, injuring both school and scholar. It injures the schools because it diverts from proper educational channels funds that should be used in promoting the efficiency of the school. The temptation is strong for a school that desires to add to its numbers to do so, not by increasing its material equipment, not by enlarging and strengthening its staff, not by improving its curriculum, not by making itself a leader of educational thought, but by securing an added number of scholarships that are in reality a dead weight rather than a benefit. The effect on schools competing for the scholarships offered by other schools is equally ruinous. The temptation is almost irresistible to resort to premature specialization and by a hot-house process force a young boy into studies beyond his natural abilities. The curriculum is arranged not with reference to the prosecution of those studies that will best suit his mental development, but with the sole thought of securing the scholarship prize. This premium placed on proficiency in special studies cannot fail to lower the educational *morale* of the entire school. The scholarship competition is bad for the school, because thru it the school is placed in a false position when it offers a pecuniary reward for intellectual attainment, because the system prevents the construction and adoption of

a curriculum framed solely for educational purposes, because the legitimate educational aim of the school must be distorted into a process of cramming for specious results, because undue and early specialization prevents the gaining of that liberal education on which alone true specialization can be based.

Yet baneful as are the effects of the system on the schools, the tendency towards such effects is even greater when the results on the pupils themselves are considered. The importance of the scholarship is assuredly magnified out of all proportion to its real worth when the names of the winners are inscribed on the walls of the schoolrooms, when their photographs are displayed in similar places, and when the announcement of the result is posted on bulletin boards outside of school buildings and surrounded by the same crowd of gaping spectators that inspect the returns of the winners of races or of cricket matches. It is inevitable that a boy should come to think of himself with feelings of importance not always justified by the real facts. Yet even worse than this is the sordid motive that must play an important part in the contest for scholarships. Education becomes a means of livelihood, not an end in itself, when boys of twelve and thirteen are able to earn scholarships worth \$300 or \$400 a year and available for several years. It is impossible for boys at that age to earn as much in any other way, and not unnaturally they come to be regarded by their parents as well as by themselves as articles of commerce. When a girl under fourteen holds three scholarships whose aggregate worth is \$325 a year and which are tenable for four years, when in one family five children have been regularly coached evenings by private teachers and thus enabled to earn in seven years scholarships and exhibitions aggregating \$4250, when many similar instances can be cited, when the reputation of the school is measured by the scholarships it has won, is it strange that all sense of the true purpose of education is in danger of being lost, that education becomes a means of traffic, that public opinion is demoralized, that schools are forced to have large classes and few teachers because of this diversion of funds, that cheap labor in the form of pupil-teachers is resorted

to, and that education for education's own sake makes so little progress?

So thoroly does the commercial spirit permeate English education that it comes into evidence in a score of ways scarcely recognized by the English themselves. The great national organization of the teachers of the elementary schools is called the National Union of Teachers. It comprises the great majority of the certificated teachers in England and Wales, and teachers are everywhere spoken of as "union" or "non-union." Its objects are much the same as those of the general labor unions, and its annual meetings are discussions not of educational matters pure and simple, but of questions of organization, like tenure of office, superannuation, pensions, grants, salaries, and kindred subjects. Presentations to teachers on the occasion of their marriage, promotion, or removal are often made by former or present pupils, or by staff associates, and the notices of such presentations are inserted in school journals at a nominal rate. As the excellence of a school is measured by the number of scholarships it has won, so the superiority of the teacher is presumably attested by the value of the presentation and by the corresponding length of the notice. Even religious instruction is pervaded by the same desire for substantial reward, and the National Society for Promoting the Education of the Poor recently offered nearly sixty different styles of certificates of merit, together with long lists of prize books for "proficiency in religious knowledge."

An evidence of the same spirit in boarding-schools is seen in a condition that places the great financial prizes of the profession in the hands of masters who may or may not be good teachers, but who have made themselves good boarding-house keepers.

But prizes, scholarships, unions, presentations, and kindred subjects are but the external manifestations of a commercial and materialistic conception of education, that for many years found its most objectionable manifestation in the administration of educational funds known as "payment by results." In 1861 it seemed to Mr. Robert Lowe, Vice President of the

Committee of the Privy Council on Education, a happy idea to apportion the funds administered by the Science and Art Department to those schools that could show the best results. These results were to be determined by the success of individual pupils in passing examinations in certain specified subjects of science or of art. A pass examination of a pupil in an elementary scientific subject entitled the school to £2, while an advanced scientific subject passed with honors entitled the school to a grant as high as £8. Similar grants were made for subjects in art, extra grants were given for certain subjects, attendance grants were made, and the whole system of appropriating the funds at the disposal of the department was worked out with a mathematical precision worthy of a Newton. The schools on their side bound themselves to give at least fifteen hours per week instruction in the subjects under the department, and naturally many schools gave much more "There was money in science, mathematics, and drawing," says Miss Alice Zimmern. "Geography, history, languages, and literature were unremunerative. They must go to the wall." Many modifications of the original system were made, and with the extinction of the Science and Art Department payment by results *ipso facto* came to an end. Yet it will be long before the evil effects of the plan can be eradicated from the educational system of England. It has turned the tide in the direction of "practical" subjects, it has put a premium on cramming. It has influenced the schools to teach those subjects in which grants could be most easily earned, it has substituted considerations of finance for an organic curriculum, and it has emphasized still more the class line between the scientific school attended by the lower middle class and the literary school attended by the higher classes.

The recent Acts have not been able to make headway against this pernicious influence. The schedules are still loaded with science and mathematics, children are prematurely forced into advanced scientific subjects where they memorize formulæ they are too immature to apply; advanced magnetism and electricity are studied by boys of thirteen and fourteen whose general education is deplorable, advanced

physics and advanced chemistry are taken at the same time between the ages of fourteen and sixteen, and, as Mr. J. W. H. Headlam has so forcibly pointed out, there are many schools with finely built, well-equipped laboratories and an unlimited supply of expensive material for teaching chemistry and physics but without a single good modern atlas, much less an historical atlas, and without a standard dictionary of the English or any other language. It is true that the London Education Act of 1903 in particular recognizes that the previous grants made under the Technical Acts acted against a broad general education and it aims to redress the balance in favor of the humanities; the Code of Regulations for Public Elementary Schools, issued in May, 1904, puts before the English people, as well as before the teachers in these schools, a higher ideal of education than has ever prevailed in regard to the elementary schools in that "for the first time the child rather than the official or the taxpayer is recognized as the most important consideration," and it has thus "finally shaken off the misleading associations of the theory of 'payment by results.'" But notwithstanding the new ideals that are being set up in high places, it must be long before the evil wrought by the legislation of 1861 can be wholly eradicated, and the spirit of commercialism driven from that part of the educational system supported by public expense.

A second noteworthy aspect of education in England is the religious one. It is impossible to understand the position of "the conscientious objector" to the new acts without understanding the condition of religious instruction in the schools previous to their passage, since it has been over the question of religious instruction in the schools that the battle between the Church and the State has waged most fiercely. It is an observation attributed to Sir James Kay-Shuttleworth, that after the Reformation the schools were not diverted from the Church, but the laity were associated with the clergy in their management, and joint action of the clergy and the laity was thus substituted for the exclusive control of the priest. The result was that the Church, long accustomed to the entire management of education, endured this joint control with ill-

concealed displeasure. The education of the children of the poor was regarded as part of the charitable work of the various religious denominations, and hence the Established Church, the different nonconforming bodies, the Roman Catholic Church, and the Jewish Church all maintained voluntary schools in order that in them religion might be taught according to the special tenets of the church supporting them.

Yet the demand for such schools did not come from the parents, who were less concerned about the religious instruction their children received than they were about the instruction that would produce immediate pecuniary results, and thus they gave them but lukewarm support. The burden of maintaining such schools was a heavy one and fell in the main on a small number. New subscriptions were hard to obtain and schools were often greatly in debt, in spite of the large annual contributions made by the teachers of such schools in the form of lower salaries than those given in the board schools and in the greater amount of work performed. They often existed in small villages because they were subsidized by corporations or by private individuals who were large property-holders and who thus protected themselves against the still heavier expense that would follow were board schools established. In the large cities they were maintained at a lower cost than were the board schools, but no attempt was made to show that the instruction received by them equaled that given by their rivals. Moreover, it must be said that the *raison d'être* of these schools—superior religious instruction—certainly did not seem to be satisfactorily accomplished. It is not necessary for proof of this fact to turn to the strictures of Sir John Gorst in his now famous speech made in the House of Commons, June 17, 1898, in which he showed conclusively that religious instruction was better given in the board schools than in the voluntary schools. The unsatisfactory character of the religious instruction in the voluntary schools was admitted by more than one supporter of such schools.¹ Could a different result be ex-

¹ "In 104 schools of the diocese no regular religious instruction is given by the clergy" (Bishop of Hereford). "The results of the Scripture examination were extremely disappointing to all concerned" (Report of the Council of the Battersea Training College).

pected, when the schools rested on a narrow ecclesiastical basis? The National Society for Promoting the Education of the Poor in the Principles of the Established Church—the official designation of the society that has been responsible for the voluntary schools of the Church of England—united to itself schools conforming to certain conditions, among others one that the masters and mistresses should be members of the Church of England and that the inspection of the schools should be under the direction of a person appointed by the bishop of the diocese, the National Society, or the diocesan board of education. Yet nothing is more certain than that, as long as the religious test continued, teachers with elastic consciences would trade upon it. The report made to the Archbishops of Canterbury and of York by the Church inspector of training colleges shows that often commercial reasons were the decisive ones in entering these schools. In one instance the principal of a training college enlarging its accommodations states that he received twenty-three letters from non-conformists professing a willingness to be confirmed and to conform to all the college requirements could they be admitted. The inspector also complains that the first-year students come to college “often desperately ignorant of religious truth, some often unconfirmed,” and often in doubt as to whether they have been baptised.² At one of the darkest hours of the Civil War, when President Lincoln was besieged by selfish office-seekers, he said that he “was like a man so busy in letting rooms in one end of his house that he cannot stop to put out the fire that is burning the other.” The war between different creeds and the war of voluntary schools against board schools went on, while the schools were crippled and society suffered because of it, and the combatants were urged on by those who affirmed that they would resist to the utmost of their powers any attempt to undenominationalize the training colleges for teachers. It was a ruinous war, for the only ground on which subscriptions could be asked for from those not immediately concerned in promoting sectarianism was the fact that the voluntary schools were carried on for

² Annual report of the National Society, 1897, p. 78.

less money than were the board schools and that therefore the abandonment of the voluntary schools would mean an increase in the rates for the support of the board schools that would take their place. But this decrease in the expenditure came largely from the lower salaries paid to teachers. Many of the teachers trained in church training colleges became teachers in the board schools, because of the higher salaries and sometimes from the superior accommodations and equipment provided. No effort was made to show that the education received in the voluntary schools was superior to that received in the board schools or even as good as that; it was in fact the board school that as a rule set the pace in the matter of building and equipment. It is a truism in political life that no political party can have more than a brief existence whose only foundation is a single political principle. It is equally true that a school system carries within itself the germs of decay if it rests on the narrow basis of a desire "for promoting the education of the poor in the principles of the Established Church." The cumbersome machinery that was needed to operate the dual system of schools was swept away by the Act of 1902, yet the bitterness of feeling in regard to religious instruction in the schools has not only not been diminished but has rather been intensified by the new system. This system, it must be remembered, makes no change in the religious teaching given in the different schools—it simply maintains existing arrangements. As Mr. Sidney Webb has so ably put it,³ in the 498 board schools of London educating 71 per cent. of all the children, there still is taught the same "undenominational Christianity," in the 331 Anglican schools with their 21 per cent. of the children, the Church Catechism and the Book of Common Prayer are taught, the 100 Roman Catholic schools go on providing their 4 per cent. with the doctrines of their own Church, the 15 Wesleyan Schools and the 7 schools of the British and Foreign School Society give exactly the religious instruction they prefer, while the nine large Jewish schools inculcate their own faith and observe their own festivals. "What the Acts of 1902-03 do," continues

³ *Nineteenth century*, October, 1903.

Mr. Webb, "as regards the voluntary schools, is neither to create nor to alter the existing diversity, nor yet to establish any new test, but . . . to make the salaries of the teachers and the current expenses of education independent of the charitable subscribers, and to charge these expenses to the public purse." But the conscientious objector feels it little short of infamy for the Government to countenance in the schools the teaching of any form of religion in which he himself does not believe and thus he refuses to pay his taxes for "subsidizing error." The situation is indeed a serious one when a man of such wide experience in educational affairs as Mr. Webb is led to say, "To the problem thus raised I know of no solution."

The commercial and the sectarian aspects of education in England are so apparent that he who runs may read; but a third characteristic—the social—is so subtle in its nature as to make its analysis difficult and its effects, far-reaching as they are, seem illusive and intangible. It is difficult in America, where we have at least the theory of democracy, to understand at all times, or to appreciate at any time, the importance of the complex social fabric in England. Yet in spite of social transformations in England during the past twenty years, social distinctions still lay a heavy hand on education in England. Political democracy has, as a result of the great political reforms of the country, come to be accepted as a fact; but no distinct upheavals that correspond to the political reform acts of 1832, 1867, and 1884 have taken place in educational or social conditions. The high stone wall and the encircling hedge that protect the Englishman's castle from the intrusive eye of the passer-by, the solitary state in which the English lodger takes his meals, the exclusive compartment railway carriage, are but external manifestations of the exclusive attitude of mind which the Englishman bears towards everything. Democracy may have thoroly permeated English political life; it may, thru co-operation, have made inroads into industrial aristocracy, and thru political and economic influence it may have had some effect on social life, but education is still resisting its advances.

How deep-seated these social distinctions in education are is well illustrated by the report of the Schools Enquiry Commission. This commission was appointed in 1864, under the chairmanship of Lord Taunton, to inquire into the condition of all schools not included under the jurisdiction of the previous commissions of 1858 and 1861. This included all of the endowed grammar schools of England and Wales (except nine great public schools), and education in private and proprietary schools. The commission, in its report presented in 1867, divided the schools that had come within the scope of its inquiry into three grades corresponding roughly to the classes of society patronizing them. Schools of the first class were patronized by parents of ample means who sent their sons to the great public schools and by parents of good education but restricted means who wished to cheapen education. Schools of the second class were patronized by well-to-do parents who intended their children for some employment the preparation for which ought to begin at about sixteen, and by parents of limited means whose sons must at sixteen earn their own living, either wholly or in part. The third class of schools was used by a class distinctly lower in the social scale, but numerous in numbers—small tenant farmers, small tradesmen, and superior artisans. The special function of the first-grade school was held to be the formation of a learned or literary and a professional or cultured class. The school life of the boy continued until he was eighteen or nineteen and naturally ended in the university. The second-grade schools were those whose special function it was, altho it did not at all exclude an ideal of culture, to prepare young men for some form of commercial or industrial life. The third-grade schools were intended to train boys and girls for the higher handicrafts or for the commerce of the shop and town.

In the nearly forty years that have intervened since the publication of this report, great social changes have come, but, roughly speaking, the classification of schools made at that time still holds. The classification is not ostensibly based on social lines, but it practically results in that. It is still possible, much the same as in the past, to divide the schools into

three groups corresponding roughly to the three great social classes. The old universities of Oxford and Cambridge and the great public schools, supported by ancient endowments and heavy fees, provide education for the so-called upper classes; the local universities and the secondary schools, supported in the main by modern endowments and moderate fees, are attended by the middle classes; while the elementary schools, supported by parliamentary grants, meet the needs of the lower classes.

The great public schools with their high fees are of necessity the schools of the upper classes, and their curriculums are arranged with reference to this fact. How well that work is accomplished is known to all; but nowhere is testimony to the efficacy of that work better stated than in the report of the Public School Commission appointed in 1861, under the chairmanship of the Earl of Clarendon, to inquire into the management of the great public schools. That report says: "It is not easy to estimate the degree in which the English people are indebted to them for the qualities on which they pique themselves most,—for their capacity to govern others and control themselves, their aptitude for combining freedom with order, their public spirit, their vigor and manliness of character, their strong but not slavish respect for public opinion, their love of healthy sports and exercise. These schools have been the chief nurseries of our statesmen; in them, and in schools modeled after them, men of all the various classes that make up English society, destined for every profession and career, have been brought up on a footing of social equality and have contracted the most enduring friendships and some of the ruling habits of their lives; and they have had perhaps the largest share in molding the character of an English gentleman." ⁴ But that the advantages of these great schools are not even yet open to all is apparent from the report of the Royal Commission on Secondary Education, made in 1896, when it states that it considers one of its great functions to be "to save this higher education from becoming the prerogative or preserve of any special order, and to make the way into it,

⁴ Report of the Commission, I, 56.

and into all it leads to, more open and accessible to capable and promising minds from every social class.”⁵ But it must be said that, notwithstanding the hopes of some, class education does exist, not only thru force of tradition but also because it is in reality desired. Class schools exist and class lines largely define the subjects pursued in them. The elementary schools are doing a great work for England, yet the feeling is very strong that parents who can afford to send their children elsewhere should not send them to the free schools, and one well-to-do member of Parliament recently laid himself open to criticism because he sent his children to a higher grade school.⁶ In 1867 it was a problem in secondary education that the Schools Enquiry Commission could not solve “how far pupils of different social classes can be successfully taught in the same school.” It is in the eyes of many still a problem, tho in the large towns, especially in the North, the differences are apparently diminishing.

What is true of schools is also true of all connected with them. The caste line, which is said by both the pulpit and the press not to exist, in reality often presses hard on teachers, especially those in the elementary and the higher-grade board school. “We are hampered by social difficulties between teachers and teachers, by social difficulties between taught and taught,” said an English teacher recently at an important educational conference. “No teacher in an elementary school ever has as a friend a teacher in a secondary school,” is the testimony of a professor in one of the great provincial universities. Yet one does not need testimony by word of mouth to prove that class lines are drawn between the teachers of different grades of schools. The fact is apparent on every side.

⁵ Report, I, 138.

⁶ The reflection of this idea seems to be found thruout the British Empire; the Natal (South Africa) *Witness* of July 15, 1905, for example, apologizes for statements that have appeared in its columns to the effect that the children of parents well able to pay for them were receiving free education, saying, “We are informed on further inquiry that the complaint had been exaggerated. No children of parents able to pay have received free education, tho, thru a misunderstanding and in contravention of the Department’s regulations on the subject, school books were issued to certain children. In fairness to the Education Department, this explanation is made.”

But no fact is more certain than that the protest as yet made by the social aristocracy against the further advancement of democracy in education must in the end prove ineffectual. The old encircling walls of York and of Chester have become public promenades. The princely seat of the palatine of Chester has become a home of the Young Women's Christian Association. The splendid palace of the Bishops of Durham who ruled with regal magnificence over the County Palatine—the palace where high potentates of Church and State have been entertained from the times of Matilda to our own—has become the seat of the University of Durham. Young men from the surrounding country now dine in the old hall of the bishop-princes, and have their private rooms in the Norman gallery that dates from the twelfth century. Walls and palace are as picturesque as of old, but they are serving a better purpose in ministering to the many than when protecting the few or affording passing entertainment to lords of high degree.

Democracy in education is inevitable. If that fact is frankly recognized by the leaders of England's social and educational aristocracy, and direction and assistance are given by them, its coming will be peaceful and beneficent. If the approach of educational democracy is resisted by those who should be its natural leaders, its progress may be temporarily checked but it will not be permanently hindered. Its opponents will beat against prison bars and without staying its progress. If the democracy of education comes without this guidance and direction, it will mean the loss of much that is enshrined in the affections of the best of the English nation, and it will mean a temporary triumph of much that is mediocre, commonplace, and even vulgar.

This consideration of some of the commercial, religious, and social aspects of education in England must have suggested some of the serious aspects of the present situation.

One of the gravest of these has been the lack of a consistent educational theory. The number of Englishmen who have at any time made a distinct contribution to educational theory is extremely limited. The number is equally limited of those who to-day represent a clear, definite, comprehensive

theory of the object of education and of the best means of attaining it. When so few great leaders of educational thought are found, it is not strange that vague and ill-defined ideas as to the end of education are found among the masses.

With the upper classes education is largely a matter of tradition. It is a part of the social inheritance, and it finds an objective point in the theory that the Englishman is born to command. As class lines between the upper and the middle classes become less clearly defined, somewhat of the same conception of education filters downwards. Education is not sought by the lower classes, but it is forced on them by the State on the one hand because of the disgraceful condition without it, and by the Church on the other hand because of the inherited idea that to the Church belongs the oversight of education. But the question of the object of education is not settled when the upper classes demand opportunity for athletics in order that young Englishmen may be trained to carry out an imperial policy, or when the middle classes demand technical education that they may rival the commercial success of Germany, or when the lower classes resist the enforcement of the Compulsory Education Act. It is not settled when the Church demands sectarian religious instruction in the schools, nor is it settled when the State pursues a vacillating policy and allows each individual school to carry out its own ideas as to education.

It has been in this lack of a consistent theory of education and of an appreciation of the true aim of education that has been found the historical origin of the present absence of a consistent educational system. It would indeed be within the bounds of truth to say that England, until the passage of the Acts of 1902 and 1903, has had no educational system whatsoever. Schools have been founded by private individuals, either from charitable motives or for purposes of gain, but each has carried out its own ideas and rebelled alike at interference and at the exercise of external authority. The individualistic theory of English life long controlled its education, and its result has been most pernicious. The English understand the art of living alone, since each man's home is

his castle; they understand equally well the art of controlling others; they have yet to learn that still more difficult art of co-operation. Thus it results in the educational world that each school has gone on its own way, practically demanding and receiving educational chaos in the name of "freedom, variety, and elasticity."

The result has been a mad pursuit of education that will "pay," zeal on the part of each school to outstrip every other school in meeting the need, ruinous competition instead of friendly co-operation, cramming instead of education, and a condition of educational anarchism that would be hopeless did not an occasional protest arise against it. The voice of the prophet and seer is coming to be heard, pointing out, as was done at a recent meeting of the Incorporated Association of Headmasters, that as the art of painting did not reach perfection until the fifteenth century when all artists chose the same subject, and that as cricket did not become a scientific game until its rules had regulated the size and weight of the ball, the width of the bat, and the length of the pitch, so in a similar way the educational system cannot attain its best results until some organization shall have brought about community of aim and similarity in the means of attaining it.

It is in the department of secondary education that this lack of organization has been most seriously felt. The Royal Commission on Secondary Education appointed in 1894 called attention to the fact that the Charity Commissioners, the Science and Art Department, the Education Department, and the Board of Agriculture all represented the central government and exercised concurrent jurisdiction over secondary education; that, in addition to this, similar authority was exercised by the local county councils and county borough councils; that similar jurisdiction was exercised by the governing bodies of endowed schools, the managing committees of proprietary schools, the local committees under the Science and Art Department, the local school boards (in so far as the schools under their control gave secondary instruction), and the managers of the voluntary elementary schools where such schools also gave secondary instruction.⁷ The financial resources of such

⁷ Report, I, 19-39

schools were equally complex, being derived from endowments, Science and Art grants, grants from the Board of Agriculture, local taxation, rates under the Technical Instruction Act, rates under the Elementary Education Act, and evening continuation school grants. Eight recognized authoritative agencies and other incidental agencies were clothed with examining powers, while educational administration and sanitary inspection were carried on by seven great agencies

The commission urged the creation of a central authority that should bring together the tangled lines of educational work and reduce them to a system, but unfortunately the change of government prevented the adoption of the definite plan. This is, however, the plan carried out in the creation of the new Board of Education which has taken the place of the former Education Department and the Science and Art Department

But there is reason to believe that some of the most serious difficulties that confronted the former authorities have changed name rather than character. To appreciate the present situation it must be remembered that in their origin the board schools were concerned primarily with elementary education, but thru the codes of 1890 and 1893 they were encouraged to take up subjects that had hitherto been regarded as belonging to the work of secondary education. This led to the organization all over England of so-called higher-grade board schools, that increased in influence and became strong competitors in many places with the secondary endowed and private schools. Thus the board schools incurred the hostility on the one hand of the voluntary schools as regards their elementary instruction, and on the other that of the endowed schools as regards their secondary instruction. That they were able not only to maintain themselves, but to make great progress, in the face of this twofold opposition, spoke much for the strength of their position in the educational system. But the weakness of the higher-grade school was that it had no curriculum in the proper sense of the word. It taught mainly scientific and allied subjects, not so much from a belief in the educational superiority of these subjects as with an eye to the

pounds, shillings, and pence that the Science and Art Department would pay into the school treasury as the price of such instruction. It continued the miscellaneous character of the education given in the elementary schools, the nature of which was best portrayed in a clever article a few years ago by Mr. H. G. Wells.⁸ This represents the sole endeavor of the board school teacher to be able to turn out a pupil "sufficiently molded to the code pattern to earn a grant,"—a process that the pupil found "rather perplexing, but he struggled on and was successful in earning payments for his teachers and even in getting some knowledge himself."

With the adoption of the plan for the supervision of secondary education by the recently created Board of Education the point at issue has been whether this secondary education should grow naturally out of the elementary education, or whether it should be organized as separate and distinct territory. In the opinion of all connected with the elementary board schools there has been but one answer to the question,—they have protested most strenuously against the separation of elementary and secondary education into "water-tight compartments" and insisted that secondary education should develop naturally from elementary education and both be managed by the same authority. From the American point of view this theory is unassailable. We do not recognize elementary education as suited to one social class, and secondary to another, nor do we find difficulty in the control of both varieties of school by the same authorities. "The educational ladder from the gutter to the university," that the friends of the English elementary schools demand, is an accomplished fact in the majority of the American states, and its success has never been questioned. But this solution—so simple in theory—is apparently impossible in practice in England. It is the social class line that lies at the root of the difficulty. Those engaged in secondary education have protested against the management of secondary schools by those in charge of elementary schools, the teachers in the two classes of schools are

⁸ "The Miscellaneous as an educational curriculum" (*Educational review*, London November, 1892)

separated from each other educationally and socially by an impassable gulf, in spite of frequent disclaimers as to its existence. Everyone recognizes that these disclaimers are false, and that in spite of them the educational and social class lines are firmly drawn. Those engaged in secondary education have a contempt for those in elementary education. They distrust the latter because as a rule they lack university degrees and what these represent, and they deny them even the ability to educate properly those under their care. On the other hand, the supporters of the elementary schools look with similar feelings on those engaged in secondary education; the latter may have university degrees, but they have had no training for teaching and consequently "do not know their trade." Still more are the two classes of schools separated from each other socially, both as regards the social position of the teachers and that of the families from which the pupils come. But these are after all only the external manifestations of a social and educational question that goes still deeper. There is a deep-seated feeling that while elementary education should be given to the lower classes, the education of the secondary schools should be the special prerogative of the middle and upper classes. Expression was given this feeling at the Oxford Conference on Secondary Education in 1893, when one of the speakers said: "There is danger in England, as in Germany, of creating what the Emperor William has called an 'academical proletariat.' In the face of this great and increasing difficulty it is plain that nothing should be done to stimulate further the supply of such higher school education as is preparatory for professional life." Secondary and higher education is thus regarded as a preparation for the professions, for the army and the navy, or for the public service, but not as a preparation for a business career or as an end in itself. In other words, it is the old conflict between aristocracy and democracy, and class education is the weapon with which it is fought. This conflict will never cease until there is a clear and definite understanding of the meaning of education. That this definite understanding has not yet come seems apparent from the recently issued "Regulations for Secondary

Schools." The purport of these is most forcibly expressed by Dr. Macnamara when he says, "They fail entirely to treat the provision of secondary education as anything but a 'class' necessity. . . . Their purpose is rather to set up a complete and self-contained system of general education for the middle and professional classes as a thing entirely apart, than to fashion a compartment to be fitted harmoniously into the whole scheme of national education." * This would seem to be the inevitable result of admitting children of eight or nine years of age to so-called "secondary education," since this must mean the establishment of socially select primary schools. The outcome of this apparent effort to square the educational circle must be watched with interest.

If in this discussion of English education emphasis has been placed on those phases of it that are weakest, it has been because in many ways educational conditions are similar in England and America. We are beset by the same materialistic demands to make our education "practical"; sectarianism has only a less firm grip on many of our educational institutions; democratic as we are in theory, we feel sometimes the weight of social distinctions; we assuredly cannot claim freedom from political taint in the management of our educational affairs; and "payment by results" was unfortunately long a principle adopted by New York State in the distribution of its educational funds. We also are in need of more clear thinking as to the aim and meaning of education, we too waste time and energy in duplicating one another's work, we have not yet learned co-operation, our teachers often lack a liberal education, and our scholars are not always inspiring teachers. Many of the incongruities of our system we have inherited from England, and we therefore have to meet the same difficulties in eradicating them. But in many cases these incongruities are not as yet deep-seated in our system. We can uproot them without feeling the wrench that would inevitably be felt in England should a similar reforming process be attempted. Long as is the roll of great teachers and eminent scholars of whom England may justly boast, and splendid as

* *The Daily news* (London), March 10, 1905.

have been her achievements in education in the face of almost unsurmountable obstacles, it is after all by way of warning rather than by example that we must learn from her. The hopefulness of the situation in America lies in the genuine and widespread love of education for its own sake and the willingness of the American people to make sacrifices to secure it, in the readiness with which the public and private funds are contributed to advance its interests, and in the sincere desire to learn from the educational experiences of other nations and to avoid their mistakes while adopting their virtues.

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VI

DISCUSSIONS

EXAMINATIONS AND REPORTS

The schoolman has had difficulty in determining a policy with reference to examinations. They are a necessity, and may not be dispensed with safely. In many cases the pupil bears the full weight. In the better systems the grammar school pupil has been freed from this heavy load, but college entrance requirements keep most secondary schools in this stage. Certain forms of the examination of teachers have been in common use, but as the training of teachers before they begin work and during their years of service is improved, the forms and methods of certification are also improving. A most important step in the division of this labor is reached when the examination includes with these a larger unit—the school as a whole at work. Our Central and Western schools have experimented in this direction. Other interesting examples are to be found in a report recently prepared by Dr. Patrick Geddes of that unique school Abbotsholme, and Dr. Michael Sadler's reports on secondary education in Liverpool, Sheffield, and Birkenhead. The Y. M. C. A. has during the last year subjected itself to the frank criticism of a number of experts. These examinations indicate an appreciation of the democracy of the school and of the value of tests of function.

In one of the leading educational monthlies appeared not long since a criticism of the report issued by one of our large city school systems. This particular review was perhaps too destructive, but its publication calls to mind a need which I have frequently had occasion to urge. One finds in the school publications very little mention of the great number of reports issued year after year. For the most part these have little more than local circulation, a good piece of work can scarcely hope for the commendation that will bring it to the notice of

those whom it will serve, while poor and careless work will not receive the treatment it deserves. The criticism of a large amount would be unnecessary, but an evaluation each year of a few of the best reports would soon improve these and furnish a standard which would aid superintendents and principals thruout the country.

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ANOTHER VIEW OF DEPARTMENTAL TEACHING IN ELEMENTARY SCHOOLS

"Nothing," says Mr. Van Evrie Kilpatrick, discussing departmental teaching in New York elementary schools in the May number of this REVIEW, "nothing is more deadening of itself to a child than to listen to the same voice, see the same surroundings, witness the same methods, and all within the narrow compass of a single room, and under the eye of a single teacher." *Caveat*—New York schools only.

Well, great progress has undoubtedly been made within the last few years in the study of the psychology of childhood, but rarely has the convenient doctrine of fatigue been pushed so far in order to explain children's deficiencies. If the statement above quoted is not overdrawn, one's heart must go out in pity towards these tired children of New York. It distresses them to hear arithmetic, grammar, and geography taught in the same pitch and tone of voice. They really love these studies, especially under the departmental system of teaching, but what wearies them is the sameness of tones of voice. To be subjected to the same rules of conduct and deportment day after day is also inexpressibly annoying. They regard it as fatiguing to have a regular habitation in any particular room: same seat, same windows, same blackboards, same ventilation, etc. To be under the eye of one teacher during the day (who probably knows them too well) is positively *ennuyeux*! What their world-worn, *blasé* souls crave is change and variety. At the early age of twelve they have exhausted the pleasures of life; they positively must have something new every forty minutes.

To furnish the titillation necessary to their jaded nerves, to keep them from becoming dead to the world, departmental teaching in shape of a continuous pedagogic vaudeville—all star performers—with “four to eight” diurnal migrations from room to room is provided. Under this beneficent plan, we are assured, truly astonishing results are accomplished. The children are delighted; they make marvelous progress in their studies with astonishing ease; all the aches, all the pains; all the discouragements and labors incident to pupil and teacher under the old régime, disappear as if by magic. Principals praise the system with the fervor and abandon of a Peruna advertisement.

It is evident, however, from the article under discussion that New York teachers work under peculiar conditions. They prepare daily recitations “in fifteen to twenty subjects or parts of subjects” (p. 470). Before the introduction of departmental teaching children apparently “remained continuously in one room, in a single seat at a great physical loss” (p. 472). In taking up a class at the beginning of a year, grade teachers waste much time in “needless reviews and groping”—apparently to see whether the principal, who approved the promotion of the class to the next grade, knew his business (p. 475). Correlation of studies is of little or no importance; the child will do all that himself. “Let him alone.” It is like “chewing the food for a child” (p. 480).

Without claiming superiority for Chicago schools as compared with New York schools, I would call the reader’s attention to the fact that teachers in Chicago are not in the habit of preparing twenty lessons daily for children in elementary schools; that all children in such schools have twenty-five minutes of recess and ten to fifteen minutes of physical exercises on gymnastic apparatus; that children are promoted from class to class with the approval and supervision of the principal of the school; and that correlation of studies is considered of considerable importance.

Another peculiarity of the New York system is that the children travel from one room to another. They have from “four to eight” teachers (p. 470). The discipline thereby “is greatly improved.” “The child becomes a free moral

agent "; he " becomes more and more his own master "; added opportunities for disorder furnish added opportunities for self-restraint " (p. 7). Each child makes, it appears, eight pilgrimages about the building from room to room; each child has eight distinct opportunities for disorder; each child valiantly resists temptation eight times per diem. Marvelous children! The plan is " warmly endorsed " by New York teachers.

Well, to one with a memory, " warm endorsements " from teachers are no new thing. Some of the most preposterous vagaries of an ill-balanced mind have been " warmly endorsed " by teachers. It was not very long ago that a certain high priest in educational circles used to assure us with a prodigious wealth of biting sarcasm and moving invective that the proper way to teach English was to begin by throwing the grammar and the spelling book out of the window. This iconoclastic scheme was " warmly endorsed," and some spelling books and grammars were figuratively cast out of the school window. A little later the same pedagogs surreptitiously and without blare of trumpets went out into the alley and brought the books back. Then, later, an epidemic of " Ratio " swept over the land; small children were lisping glibly ratio to delighted educators, and it was felt that a teacher was strictly " in it " in proportion as the word ratio was used in solving problems in arithmetic. This, too, was " warmly endorsed " in its day. Then there was the clay-modeling fad (warmly endorsed); the basket-weaving fad (warmly endorsed); the printing-press-and-the-school-newspaper fad (warmly endorsed); the girls-mussing-with-chisels-and-saws-in-school fad (warmly endorsed); the Dutch-windmill-and-Hiawatha-wigwam fad (warmly endorsed); the King-Lear-and-Othello-for-twelve-year-olds fad (warmly endorsed); the corn-beans-and-cabbage-in-the-front-yard fad (warmly endorsed), *et cetera, et cetera ad nauseam*. And what has become of these warmly endorsed fads, whimsies, vagaries, eccentricities? *Mais où sont les neiges d'antan?*

Departmental teaching in elementary schools, according to Mr. Kilpatrick, has been before the educational public of this

country "for fifteen years or more." He expresses surprise that the plan has not been generally adopted. Why not?

The main reason is that most teachers do not like it and cannot do their best work under it. At first blush (and I suspect the New York schools are in that condition) it would seem as if a teacher would be charmed to be allowed to select one particular subject on which to devote all her time and energy. Miss A, we may suppose, selects arithmetic, Miss B selects grammar, Miss C selects geography, Miss D selects reading, Miss E selects spelling, etc., etc. But experience proves that after Miss A has taught decimals to six or seven classes during the day, the subject loses its fascination for her, and the teaching becomes lifeless. Miss B points out the difference between a verb and an adverb pretty vigorously to two or three sets of children, but at the fag end of the session she has not the enthusiasm that she began with. Geography is an interesting subject to Miss C—in moderation only. After Miss E has corrected six or seven sets of spelling papers per diem she feels a perhaps not unpardonable weariness. If Miss A could take up the philosophy of mathematics; if Miss B could discuss comparative grammar and Old-English usages; if Miss C could branch out into geology or political economy—under these circumstances specializing would be the soul-filling and soul-satisfying occupation that it is with a University professor. But the elementary teacher is dealing with immature minds and must stick to the barest and simplest rudiments of the subject. As soon as the novelty wears off, departmental teaching becomes an intolerable bore.

Another very important consideration in the teaching of small children—a consideration which departmental systems overlook—is the personal element: the direct and continuous personal influence of a superior, mature mind on the immature mind. What counts in teaching small children is not the amount of information packed into the child's skull, but the personal influence of the teacher. Your genuine teacher—the teacher that is fit for a teacher—instinctively makes a careful study of the personality of the forty or fifty little people entrusted to her care for ten momentous months of their life, at a period of their development when their minds are

wax to receive and marble to retain impressions. By tact and discretion she comes to know their little personal peculiarities, their home surroundings, their limitations, their strong and their weak points. Spending five hours a day in intimate personal companionship with her children, she comes to know them almost as well as do their own mothers. Indeed in many schoolrooms there is a close resemblance to the family relationship. The law says—and sound pedagogy says the same—that the teacher stands *in loco parentis* to the child in school. It is this homelike relationship, this family relationship, this paternal relationship between the immature mind of the child and the mature, disciplined, trained mind of the teacher that is so valuable in teaching. This character building, this all-around development, this precious intimate human relationship is lost in departmental teaching as applied to small children. The error consists in attempting to apply methods, suited to University conditions, to conditions totally different. The fact should be frankly recognized that a child is a child, and that his best development and growth are attained by treating him as a child while a child and not as a mature human being. Departmental teaching overlooks this.

Nor is there any apparent necessity for this much-vaunted specializing in teaching the rudiments of a subject to small children. In order to be a teacher, in Chicago at least, a person must have graduated with high rank in a first-class high school, must have passed thru the Normal School (or done equivalent work in education elsewhere), must have served successfully as an apprentice, doing occasional substitute work—all under the eye of principal and superintendent. If successful thus far, she is then given a temporary certificate to teach, and, later, a permanent certificate—provided her work is decidedly successful. She has taught, time and time again, under expert supervision and rigorous criticism—and has taught successfully—every subject in the elementary school curriculum. Miss A who teaches in an elementary school, for instance, may be of a mathematical turn of mind and may not be a profound student of languages. In a high school or a university she might develop into an entertaining and profound instructor in mathematics, but it is absurd to suppose

that she does not possess enough knowledge to teach the elements of grammar to small children in an elementary school. Under such circumstances the need of university and high school methods (that is, departmental teaching) is not apparent for small children.

It is sometimes maintained that departmental teaching enables a really brilliant teacher to extend her influence more widely over the school than she could if confined to one set of children, but it is submitted *per contra* that in scattering her influence abroad so prodigally, it is dissipated and lost in the general shuffle; that the most brilliant teacher will lose her freshness and inspiration in too frequent repetition of the same subject day after day; and thereby becomes perforce a very mediocre teacher. What wearies her is the sameness of the topic, not the sameness of her audience. Concentrating her efforts on one room, she could retain her freshness and inspiration by that constant change of studies required by the curriculum. Such a room as that would be a model for the rest of the school.

It is sometimes claimed, on the other hand, that the baleful effects of an incompetent teacher are disguised and concealed, if spread over a number of classes. This may be true, but, rightly, there is no place in the public schools for an incompetent teacher. It would be better to confine her to one room where the fact of her poor teaching would be before everybody's eyes. Responsibility is thus easily located. Confronted thus with the indisputable evidence of her own ineptitude, she could see her own faults—when pointed out to her—and she would have at least a fair chance to improve.

Principals of elementary schools who have previously been specialty teachers in a high school, sometimes favor the departmental system even to the extent of introducing it from the fifth grade upwards—choosing perhaps the methods most familiar to them personally. Other elementary principals, ever on the alert for something new, because new and untried in a certain school, introduce the system, especially when the fad seems to be favored by someone high in authority. And there are conceivable circumstances in which, to meet an unexpected emergency or deficiency, a partial and modified adaptation may be profitable.

In Chicago the policy is to concentrate on each principal the responsibility, within well-defined limits, for the welfare of the one or two thousand children intrusted to his care. He may adopt the departmental system or not as he likes; he has entire freedom in this respect. At present these children are not suffering from the brainfog and worldweariness apparently so prevalent in New York. *They still retain the normal child's exuberant vivacity and wholesome tendency to harmless mischief, nor has it been found necessary to let them travel about the building in search of fresh emotional impressions.*

The fact that the New York system is adapted to that city proves that the condition of New York children and the ideals of New York teachers are decidedly different from—and unsuitable to—the rest of the country

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VII

REVIEWS

The management and training of children—By WILLIAM J. SHEARER, A.M., Ph. D., Superintendent of schools, Elizabeth, New Jersey. New York: Richardson, Smith & Co., 1904. 287 pp. \$1.50.

The book contains some 280 pages of open type, and is easily read. The subject is popular, as it appeals to the many parents and teachers of the land. The author seems to regard it as new. In his Preface he says, "Upon almost any subject which one can imagine, no matter how unimportant, many excellent books can be found: yet a diligent search thru the libraries of even our largest cities will fail to disclose any book of practical suggestion to parents on the management and training of their children."

Is it possible that such works as Rosmini's *Method in education*, Rousseau's *Emile*, Pestalozzi's *Leonard and Gertrude*, Preyer's *The mind of the child*, Spencer's *Education*, Kate Douglas Wiggin's *Children's rights*, Hopkins's *How shall my child be taught?* Kirkpatrick's *Fundamentals of child study*, and a hundred more, have not found their way into the "libraries of even our largest cities," or, if they have found their way there, that they are not regarded by Dr. Shearer as offering practical suggestions? Most people would regard the whole library of pedagogy as pertaining to the management and training of children.

The book is divided into forty chapters. These chapters are catalogued in the beginning pages under various headings and sub-headings. A glance at these headings and sub-headings gives one the impression that the author's object was to see how many different headings for chapters he could think of, rather than to show clear discriminations in topics and logical treatments of those topics. For instance, one chapter is entitled, Responsibility of parents, and gives as its first sub-heading, A terrible responsibility.

Second, Cowardly attempts to shift the burden. Third, Why chips do not fall far from the block, etc. Another chapter is headed, Responsibility of the father; another, The mother's influence. One will at once be wondering what will be the dividing lines between parents and fathers and mothers. Another chapter is entitled, The home influence; another, Home behavior; another, Training of body and mind. The question will naturally arise, can the training of the body and mind be separated from the home influence and home behavior?

Examination of the table of contents impresses one that the book, while containing many truisms, does not partake of the nature of a scientific treatment on the training of children. No book can be said to contribute to learning on any subject of morals that does not give data of morals, that is, definite standards of right and wrong as the bases of comparison. For instance, what will good example mean unless the good is defined? What would leniency or severity mean unless there is first established a rule of conduct?

The defect in the table of contents of Dr. Shearer's book may readily be inferred to characterize the pages. Opening the book at random (chapter ii), Time, place and character of training, the first paragraph begins as follows: "All life is a constant warfare. That of a child is especially so. While developing conscience and embryonic reason strive for supremacy, animal appetites and propensities tempt to utter ruin by offering in exchange all the grosser and more material pleasures in the child's heaven and earth." This language seems grandiloquent, but hardly presents any clear picture to the mind.

In the second paragraph of this chapter, the author says: "It is very important that those upon whom rests the responsibility of training children should fully understand the significance of the word 'training.' That some do not is shown by frequent acts of many earnest parents. Many parents still believe it means teaching. Such is not the case. Primarily, teaching means the imparting of knowledge. Training implies, not merely the imparting of knowledge, but also inspiring to repeated action, which results in the formation of habits. Teaching gives to the child new facts. Training enables the

child to make use of the knowledge he possesses. Teaching is very important. Training is far more important."

In the third paragraph, he says: "Parents should ever be mindful of the fact that all will receive some kind of training. During almost every wakeful moment every child is being trained. Every sense reaches out after knowledge, all of which helps determine his training. The great aim should be to see to it that the training is of the right kind." Set these two paragraphs side by side, and one discovers that training in the third paragraph must correspond, or nearly, to the teaching of the second.

In chapter v, under Requisites, "Third Requisite. Many parents are heard to assert that they expect their younger children to be controlled by correct principles. Tho meaning well, such parents make a grievous mistake. It is important that every parent should clearly appreciate the truth and the importance of the statement that principles are for adults and rules for children." Here again the reader is puzzled to understand just what is meant by principles in comparison with rules.

These samples quoted are characteristic of the book all the way thru. While there are many things in it that are true, the best that can be said of it in the interests of the parents is that it is not necessary. All that it says that is true has been said in thousands of ways. What we need in our books on the subject of the training of children is not desultory platitudes and truisms, but carefully thought out statements based upon a knowledge of psychology, ethics, religion, and the utilities of life.

The industrial history of the United States for high schools and colleges

—By KATHARINE COMAN, Ph B., Professor of economics and sociology in Wellesley College New York. The Macmillan Company, 1905. xviii+342+xxiv pp. \$1.25 net.

If American civilization has a materialistic tone, there is a satisfactory historical excuse. As Professor Coman puts the matter in her preface, "The history of the United States, more than that of any old-world country, is the record of its physical achievements." Within a hundred years half the

continent has been transformed from a waste of woods, prairie, and desert into a cultivated land full of busy towns. This fact has relation to the teaching of history. Professor Coman urges not only that industrial history is the "essential theme," but also that it is as interesting as the political affairs or the military incidents described in the ordinary text-books. Her aim apparently has been to prepare a book which could be used in place of texts of the older type. This effort does not imply a failure to appreciate the importance of the other phases of American history, for her method of presentation assumes that the student already has a knowledge of the general history of the country. Unlike Professor Cheyney's somewhat similar book on the *Social and industrial history of England* this book includes scarcely any information other than that which comes fairly under the head of industrial history. In the chapter on the "Industrial aspects of the Revolution" nothing is said about the outbreak of hostilities between England and her rebellious colonists. The reader is left to infer the fact from the statement that all intercourse with the colonies was prohibited and that the Continental Congress in March, 1776, authorized the fitting out of privateers. Hardly more of the general history is given in the chapter on "The Civil War: economic causes and results," except that the beginning of fighting is more definitely located in relation to industrial or financial incidents. With this method of treatment the question arises, will the high-school student remember enough of the general history of the United States learned in the grammar school to use such a book to the best advantage, for it is improbable that many high schools can afford the luxury of two courses in United States history. In the case of college work there is not the same difficulty. Perhaps the question can be answered only by experience, but this is certain, to take up United States history from such a point of view would save wearisome repetition, because the ordinary treatment of the subject in high-school text-books is only a restatement with greater fullness of what has been described in the text-books for the grammar schools. The chances that the experiment would be fruitful would have been increased had the author included in her work, as Professor Cheyney did

in the companion volume, a consideration of those phases of American history which are "social" without being definitely industrial.

One of the good qualities of this book is its directness and clearness of statement. The course of industrial evolution, and the complex tendencies which make up each phase, might, however, have been easier to grasp, especially for younger minds, had Professor Coman shortened her chapters. All schemes of periodization are more or less arbitrary, altho the particular one chosen may seem to an author necessary in carrying out her idea of the proper development of the subject. For example, the chapter on "The industrial consequences of the War of 1812" appears unduly prolonged, because it brings the narrative down thru the panic of 1837. Many events after 1823 or 1825 may be traced to the War of 1812, but in other cases the connection is so remote as to appear forced. Again, the chapter on the economic causes and results of the Civil War includes events as late as 1880. Occasionally in the treatment itself a great many details are given, making the burden upon the memory unnecessarily heavy. Each fact mentioned is interesting and would be indispensable if the book were a study of the subject arranged by topics. It is a fair question whether fewer facts, each selected for its illustrative value, would not have served the purpose without exposing some teachers to the temptation of insisting upon so many details. The description in successive paragraphs (p. 187-193) of the tariffs of 1816, 1824, 1828, and 1832 is a case in point.

In a book which covers so many periods it is inevitable that the author has felt a deeper interest in some than in others. The chapter on "The business aspects of colonization" seems to be one of these. It is especially fresh and instructive. Facts which in the ordinary treatments of the subject are so scattered as to lose their significance are grouped effectively. The chapter on "The industrial aspects of the Revolution" is another illustration, altho the material is more familiar and the management of the subject departs less from what is customary. The explanation of the commercial causes of the War of 1812 is less satisfactory. No hint is given of the

English excuse for preventing American vessels from carrying cargoes from the French colonies to France. Furthermore, the aim in establishing a blockade from Brest to the Elbe is misstated. Then follow these sentences which, to say the least, are inexact:

"The object of the order of 1806 was to punish Holland and Belgium for alliance with the enemy. Napoleon, fully master of the Continent since the peace of Tilsit, met this attack by a counter-stroke. The Berlin Decree closed all European ports to British vessels and British merchandise."

The English case in the controversy about impressment is given with hardly adequate fullness.

Altho this book is not the first to present the industrial history of the United States in fairly brief compass, it is the first which is serviceable as a text-book. It will have an indirect as well as a direct value for it will stimulate teachers to include more of the industrial development of the nation, even if they follow the course outlined in the ordinary text books.

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VIII

NOTES AND NEWS

National Educational Association

Secretary Shepard has issued a formal announcement of the fact that the Executive Committee of the National Educational Association have fixed upon San Francisco as the place, and July 9-13, 1906, as the date for the next annual meeting. There is every reason to believe that the usual railroad rates will prevail and that the same lavish and hearty hospitality which California showed at the meetings at San Francisco in 1888 and at Los Angeles in 1899, will be again tendered to the visitors and their friends.

The Trustees of the National Educational Association have issued under date of November 27, 1905, a detailed statement regarding the permanent fund which now amounts to \$147,000. It shows that the funds in their hands are in a condition of security and safety not surpassed by those of any bank or trust company in the nation.

Three prizes—a first prize of \$100, a second prize of \$75, and a third prize of \$50—have been established by the Hon. John Barrett, United States Minister to Colombia, to be awarded to the authors of the best papers on any one of the subjects named below. Mr. Barrett states the object of the prizes to be “to promote the study of the history, peoples, politics, resources, and possibilities of our sister Republics,” and to develop thruout the United States “a wider interest in our political and commercial relations with Latin-America, and to foster a more general study of Latin-American history, institutions, political, social, and educational conditions, material and industrial resources, and commercial possibilities—especially as they affect the growth of closer ties of international comity and confidence.”

The prizes are offered subject to the following rules of competition:

- (1) The competition is open to any student, man or woman, registered during the academic year 1905-06 in any American college, university, or technical school. Undergraduate, professional, and graduate students are alike eligible.
 - (2) Papers submitted by competitors must not exceed 10,000 words in length.
 - (3) Papers, accompanied by the full name and address of writer and statement of the class and college, university, or technical school to which the writer belongs, must be mailed or delivered to an express company not later than September 1, 1906, addressed to the President of Columbia University, New York, N. Y., marked "For the John Barrett Prize."
 - (4) The prizes will be awarded by a Committee of Judges chosen for the purpose, and the results will be announced thru the public press as soon after October 1, 1906, as practicable.
 - (5) The paper awarded the first prize will be transmitted by the undersigned to the Director of the Bureau of American Republics, who will cause it to be published and circulated as one of the publications of that Bureau.
 - (6) All papers submitted in competition, other than the one to which the first prize is awarded, will be destroyed as soon as the prizes have been awarded, unless, at the time of sending, a competitor asks for the return of the manuscript and furnishes a fully stamped and properly addressed envelope.
 - (7) Papers must be submitted in typewritten form.
- Any one of the following subjects may be chosen:

I POLITICAL AND ECONOMIC

- (a) The Monroe Doctrine and its influence on the political and economic development of Latin-America.
- (b) The influence of the Panama Canal on the commercial and political development of Latin-America.

- (c) *Present conditions and future possibilities of the trade of the United States with South America.*
- (d) The present material and economic progress of South America.
- (e) The practicability and utility of the proposed Pan-American Railway.

II HISTORICAL

- (a) The influences and conditions that worked for the independence and establishment of the South American Republics.
- (b) The influence and conditions that worked for the independence and establishment of the Central American Republics and Mexico.
- (c) The character and achievements of Bolivar as shown in the struggle for the independence of Northern South America.
- (d) The character and achievements of San Martin as shown in the struggle for the independence of Southern South America.
- (e) The conditions surrounding and circumstances influencing the overthrow of the Empire and establishment of the Republic of Brazil.

The Committee in charge of the prizes consists of President Butler of Columbia University, Dr. Albert Shaw, Editor of the *Review of reviews*, and President Finley of the New York City College.

EDUCATIONAL REVIEW

MARCH, 1906

I

UNIVERSITY ADMINISTRATION

Tho few colleges are now beginning or in process of re-constitution it may not be amiss to notice the superiority of small governing boards. To be in the highest degree efficient a college's trustees should number not less than seven or more than eleven. In a corporation of seven, nine, or eleven, some sense of responsibility reaches every member. All endeavor to attend each meeting and to maintain grasp upon business. The executive meets the full board often. Members are under little temptation to separate into cliques. Everything tends to sincerity, directness and dispatch.

Any old university's alumni, could they convene and deliberate, would be the best agency to elect the board's members. Nor is this gainsaid by the ill choices rather common under the desultory methods of voting by letter or by the alumni who chance to attend Commencement. Such elections, far from expressing the wisdom of the alumni, often denote simply the industry of a clique, being at times less fortunate than when college governments ignored alumni altogether. The actual sense of the alumni ought somehow to be secured.

State university governments should be stronger in alumni than most of them are. This desideratum, sure to be reached with time, will arrive soonest where the trustees are elected by the people. On other grounds as well the popular election of regents is believed to be preferable to appointment by state governors. In naming university regents a governor proceeds almost of necessity with an eye to politics, paying his own or

his party's debts or providing for the future. His appointees cannot escape an unhealthy sense of representing him, thus often acting with less independence and firmness than is natural in trustees holding straight from the people.

"Common experience during the last fifty years teaches with certainty that the efficiency of any corporation . . . depends on its having one responsible head who has knowledge of all its concerns, and gives guidance and inspiration in all its principal activities. A university corporation cannot be an exception to this rule for securing efficiency. Again, the experience of the last fifty years teaches clearly that in all fields of human activity it is the trained expert who must invent and give direction. The president of a university must be either an expert himself in educational administration, or he must be a man who thoroly understands how to utilize expert service."¹

No institution of learning has tried the plan of assigning its main executive function to a faculty or to a faculty committee or to faculty members in rotation without complete or relative failure. On the other hand—a significant fact—American higher education dates its present era of triumph exactly from the time when colleges began centralizing executive power and, so to speak, "mobilizing" their presidents. The venerable University of Virginia has at last provided for a real presidency and ably filled the same.

This reform was necessitated, not because faculties did not contain many men capable of good executive service if permanently and responsibly set thereto, but by the fact that the administration of a great educational plant is specialist work of a high order, giving rise almost daily to new and complicated problems, with which the ablest heads otherwise pre-occupied are in no condition to cope.

The most imperative service required of a university board is therefore the selection of a good executive. The choice is delicate also. Few offices in existence are harder to fill. Unless an athlete intellectually and physically, the functionary will do little as an author, investigator, or classroom teacher, yet

¹ President Eliot in his address at Yale, November 15, 1905.

he must be scholar enough to appreciate sympathetically all the various sorts of educational activity under his direction. He needs a Titan's power for toil, yet must always work *con amore*, like an artist. He must know men and be able to get on with them. Students' nature and habits must be familiar to him. Tho a mere business man would ill fit the position, the university president must be an adept in affairs, for, however numerous, faithful and capable his aides, none but he will duly look after the institution's temporalities. Representing the school before the public, he must display democratic spirit and manner, good temper and ability to speak and write, yet, with these, eminent discretion and reserve. He must be cordial, just, honorable, patient, courageous, magnanimous, inflexibly devoted to his charge. He must possess not only enterprise and initiative, but, in particular, dynamism, that marvelous gift, rarer than almost any other found among men, the power to bring things to pass.

Without formal resolution to that effect such a president becomes the recognized intermediary between the trustees on the one hand and the teaching force, students and employees on the other. Complaints, appeals, suggestions from any of these find their way to the government thru him and are discussed before him. He sees to it that all communications intended for the government, especially any reflecting on himself, reach their destination and are fully considered.

A suitable president is looked to as the finally responsible source of faculty nominations. He of course nominates only after fullest conference with all colleagues having relevant wisdom, and the board does well to assure itself that he proceeds thus. To assign the nominating prerogative to any other or others or responsibly to join others in it would be at the expense of congruity, vigor and orderly growth in the teaching system. Departments and even whole faculties easily become ossified. Unless prevented they are apt to recruit themselves by inbreeding. Methods become antiquated, teaching stale, the atmosphere soporific.

The president is the proper ultimate authority, under the

board, its rules and the law, touching the admission of students to the university and their disciplinary dismissal. Deans, faculties and faculty and student committees may advise and assist in the ordinary routine of these labors, but settlement of the deeper questions involved cannot safely be lodged elsewhere than in the chief. He alone can fully feel the responsibility; on him alone can responsibility be focused. Others lack his facilities for acquiring experience, judgment, a policy. Only a unitary authority can produce uniform procedure. A good dean or group of deans frequently conferring may secure this, but discipline by faculties or committees is notoriously unsteady, now lax, now over severe. The dismissal and disgrace of students by fellow-students, said to occur in certain universities, no faculty member scrutinizing the evidence or even knowing whether any exists, so far from being a model of discipline, is indefensible from every point of view. It is a wonder how it can prevail in any American community without encountering the law.

The student government movement has in one particular wrought great good, viz., by emphasizing as ground to the demand for right conduct in students not fussy rules but social and public spirit, regard for the common weal. Since this change college pranks are less popular and bid fair to disappear. It is more and more recognized that only doings constituting good form at home are good form in college, no separate college code being now defended.

In some centers the continuance of many rules hinders this reform. Specifically "college" rules seem arbitrary to students and most of them are somewhat so. College rules should be few, brief and preferably unwritten, being the ordinary dictates of propriety and breeding as they obviously apply to the circumstances.

Student government may be serviceable in important matters such as securing order and silence in study rooms, decorum in general, the care of buildings and grounds, but in dealing with serious offenses it nearly always fails. You should wonder if it did not. How can youth averaging twenty years of age

be expected to succeed at problems involving conflicts of evidence, college policy, men's rights, reputations, characters, destinies—perplexities to the oldest and wisest? It does not appear that student rule is anywhere a sufficient antidote against "cribbing." The authorities of one university seem to think it is so there, but, pressed for evidence, give only what is vague; while such prevention as is got depends in large part on the aid of Judge Lynch deprecated above.

So much remark on discipline does not imply that the writer believes in much discipline. In a just administration students' behavior need cause little anxiety. While human nature continues as it is, however, disorder that cannot be neglected will sometimes arise under the sanest college régime. Every interest demands that such cases be handled with justice, firmness and consistency.

Whenever authority of any sort is delegated, the individuals or committees, whether deans, professors or students, on whom it devolves have a right to know the exact nature and limits of it, within which bounds they should not only be left free to do the work in their own way without intrusion or supervision, but be supported and defended to the utmost in their findings. A president makes a great mistake who practices sitting with every committee or attending every faculty meeting. What such bodies are set to do trust them to do freely and independently, even at the risk of now and then a *faux pas*, which, if serious, can be corrected privately, without chagrin to any one. The president is thus relieved of much unnecessary toil; the sense of responsibility felt by those doing the work insures superior performance; and men receive valuable training in indispensable duties. Literal ubiquity on the part of a president is unfortunate always, but its worst consequences emerge in interregnum periods.

It lies mainly with the president to shape a university's task, ideals, standards, policies, ambitions, to determine what it shall be or try to be. Others are urged to advise, a liberty of which most avail themselves, doing all they can to provide steering wisdom, and a sensible captain will be quick to seize

and apply the many good directions thus thrown out. The best come from trustees and faculty, having the interests of the institution at heart. The true leader will contemplate no new enterprise of moment unless sure of their concurrence, nor ever think the less of a hint for having originated outside his own mind.

Were not experience the other way, one would expect trustees themselves, thru outlook committees or otherwise, to plan ahead, forecast demands, reform methods, displace inefficient officials, stimulate the sluggish, replenish the funds, arrange for new departments, lift the standard, try and secure symmetry to the total work. As a matter of fact, such initiative is on almost all hands left to the executive.

The mode of administration sketched is often denounced as a one-man power, and, where it is so used, possibly sometimes the case, as to render that a fitting epithet, the system is on the defensive. But concentration in executive control need not involve and should never in fact carry with it any arbitrary procedure. The executive will not attempt the impossible but push only measures, now and then, perhaps, dubious-looking at first, whose propriety is, when they unfold, obvious to all. If he exhibits judgment, justice and zeal for his trust, none will ever think of his authority as excessive or even, for that matter, of his having any at all.

What has been outlined cannot be very exactly the order unless the president is a fit man. This is why no detailed or iron rules for college administration can be laid down. A president may be far from the ideal yet too good to dismiss; in which case the proper presidential prerogative not only will but must be trenched upon at points. If the foreman is lax in discipline his colleagues will push him. Should he prove weak of judgment, or arbitrary, in naming for vacancies, the board will have no recourse but to go behind him and ascertain for itself what to think of candidates. And so on. Trustees are not always at fault in deviating from normal paths. They should, however, be slow in so deviating, for it is always one of two evils, even when the less. In mere business mat-

ters, where the board's judgment may easily be superior to the president's, they may overrule him without harm; nor need an occasional veto of one of his nominations injure his influence if only he is called upon for a new name.

But any real invasion of his prerogative, any indication that he lacks the confidence of those employing him, will be fraught with ill results. It will lessen his efficiency all round, his power to do well the very things in which he is naturally masterful. His office as well as his work suffers. The spirit of unrest, never absent, flames up into troublesome strength. Factions form. If the faculty has a "boss," as not infrequently happens, his face lights with joy. Progress is retarded. Difficulties rise where all had been plain sailing. Shipowners cannot thus ruffle their pilot's seas and expect him to "keep her steady." If they wish his resignation this is certainly not the honorable way to get it.

Most insufferable, as at once cruel and pernicious, is the habit into which board members sometimes fall of taking private counsel with the disaffected, hearing complaints and contracting bias by listening to *ex parte* stories. The best executive on earth is doomed if this becomes common.

Part guaranty against some of these evils is provided if the president is a member of the board, undoubtedly the ideal plan; yet all of them have arisen in as great seriousness under this plan as where the president has been a mere employee.

The business of the teaching force is to study, instruct and write, that of the administration to assist the teaching functionaries in doing those things. Instruction, in the large sense, is the grand, all-controlling end and aim. The centralization of college administration and the new emphasis thereon in recent decades means not less but more interest in teaching and investigation, a better appreciation of what faculties are for. A good criterion of college administration is its success in reducing to an absolute minimum professorial work that is not professional, that does not consist either in study or in imparting the results of study.

Unfortunately a certain modicum of drudgery has to be re-

quired of every instructor, being inseparable from the vocation. This he should cheerfully undertake and faithfully perform. The main items are or are connected with service as heads or chairmen of departments, on committees, in supervising examinations, and in appraising the results thereof. The preparation of examination papers or questions does not belong in this category but is proper professional work, because every good examination, even when it is used as a test, is a pedagogical act. To get ready an examination sheet exactly covering given ground, with no "catch," leading or unclear questions, is the finest of pedagogical feats.

So far as can possibly be arranged every available ounce of a professor's energy should be applied in the direct line of his work. Contrary to the thought of some faculty men who, sighing for the flesh-pots of Egypt, seem to regard faculties' release from administrative burdens a lowering of academic dignity, the movement means the vast increase of that dignity. It has already achieved this. The proportion of American professors attaining distinction in the calling has increased very greatly since about 1850, when loose methods of administration began to end. If American faculties are ever to compete with the best German ones in amount and quality of literary output, they must, like earnest saints, lay aside every weight.

That they may do this let the university provide a liberal administration budget. College economy is nowhere more mistaken than in pinching on office help and machinery. Extravagance itself is not more mischievous. Not only should the central office for registration, recording, correspondence, publicity and conference, possess an ample outfit of clerks, stenographers, pages, typewriters and telephone attendants, with all the necessary instruments, but each dean and head of department should have these aides and aids at his disposal to the full extent of his needs, which should be gauged liberally rather than narrowly. Drastic saving in these items is no help to the teaching function but greatly the reverse. Office efficiency is every whit as important in an educational as in a business plant and for precisely the same reasons. A faculty of fifty

good men unencumbered will exert a greater amount of real educational influence, publish more good researches, do more to lift civilization, than one of sixty weighted with foreign cares and chores as not a few American faculties are now.

Due emphasis on faculties' proper duty suggests a final remark. Universities show much diversity in dealing with professorial tenure, some enforcing the competitive principle more rigidly than others. It is not thought that a professor who has grown inefficient has a right to his place simply because he has wrought long for the institution, even if his service has been satisfactory. The elderly professor who never did aught in his life save faithfully to draw his salary, never inspired a pupil and never published a research, but has thru sheer lethargy in the board employing him continued to "hold down" his chair, is less and less frequently found in institutions of rank. In some cases application of the competitive principle appears cruel, and it may now and then be so in fact; but none who compare institutions where this procedure prevails with those using greater apparent clemency can doubt which is the juster practice on the whole and in the long run.

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II

DANGERS OF SCHOOL REFORM

This is a generation marked by the rapid increase in efficiency of commercial organization. We have on every hand innumerable examples which demonstrate how carefully the machinery of modern business is adjusted to the end that efficiency and economy may be increased. No expense seems too great, no effort too long continued, if the final result is either to send out a better or a greater product or to decrease the time required or the expense involved. In every corner of the business world competition is so fierce that of necessity the entire fabric of our commercial society is being reorganized for the purpose of promoting efficiency and economy.

The wave of reorganization affecting the individual and corporate interests of the industrial world has caused the ideals of efficiency and economy to permeate our national thought until the people are demanding that these ideals be applied to those political and educational affairs which the people control. Here and there political reorganization is undertaken and carried to a successful conclusion. Likewise the schools, which are the product of the civil, social, and industrial conditions under which they exist, cannot escape this demand for reorganization. The public mind is of this opinion, the public eye is upon the school, and the public hand is reaching out for the purpose of reshaping the educational machinery. It is my purpose to discuss the dangers of this reorganization movement and the part which teachers and superintendents should take therein.

The *first* of these dangers is that the analogy of the financial world be applied too literally to affairs that are primarily spiritual and intellectual. A school is not a factory whose efficiency can be measured by the number of boxes or bales

* Address before Philadelphia Teachers Association, December 11, 1905.

of finished goods it may ship in a year, nor by the rate per cent. of its dividends. For the factory we demand economy in operation, but this economy is determined not at all by the total expenditure but by the ratio which the expenses bear to the products of the factory. A factory which expended \$100,000 in sending to the market \$150,000 worth of manufactured goods might be far less economically managed than one which by spending \$150,000 produced \$300,000 worth of marketable products.

In education, as in business, it is not the school system which spends the least which is most economical. Here too the question of economy is determined by the product. The difficulty is that the product is to be measured neither in quantity nor price but in efficiency; but following the analogy of our reasoning with the factory, we are prone when considering a school system to attempt to judge of its administration by determining the cost per capita. The fact that one city educates its children at an average cost of \$35 each while another expends \$45 per child, forms not the slightest basis for a real comparison of the economy or efficiency of the two school systems. Neither are we any nearer the real truth when we know that 13 per cent. of the taxes go to the support of the schools in one community and 26 per cent. of the taxes in another. In such cases we are comparing the tangible and measurable matter of cost in dollars with another tangible and measurable quantity (the number of children or the total tax valuation). We get comparative ratios, which, tho mathematically exact, yet in reality prove nothing. The real vital question is whether in comparison with the cost the efficiency of the school is high or low. In reality the economical administration of a school must be determined by comparing the cost on one hand with the product on the other, but it must not be forgotten that the value of the product is determined by multiplying the quantity produced by the efficiency. It is the efficiency of each child as well as the number of children which determines the worth of a school. It is not alone the number of automobiles which a factory produces which determines the value of its output, but it is the number multiplied by the worth

of each machine. This can be exactly determined and expressed in mathematical ratios, but, when we apply this standard to the schools, we forget that efficiency of education is a spiritual and intellectual matter that cannot be reduced to exact terms or expressed in exact figures. I do not mean to say that comparisons of expenditure do not lead to some desirable results. What I do mean to say is that by this means alone we cannot come to any adequate determination of the value of the school administration and that a reorganization which has to do only with economy is likely to be so permeated and so tinged with the spirit of modern business administration that it may, in fact, be actually detrimental to the progress of the schools.

The *second* danger which arises in this movement for reorganization is that we are confronted by false standards of efficiency. Each man is prone to think that those things which he finds of importance in *his* business are the only ones of major importance in school work. Each tends to lose sight of the fact that we have now a whole people educating a whole people for all the varied activities of life that have been developed by our modern civilization.

When the Boston Latin School was first established it was for a specific purpose, primarily that of preparing for the ministry; but since that time the fields of life activity for which the public schools prepare have been broadened, until, to-day, there is no calling, no profession, no means of gaining a livelihood for which the public school is not supposed to give at least the elements of preparation. It is not so very long ago that those subjects which are now considered absolutely essential for an elementary education were looked upon as being fads and foibles, and were attacked as vigorously as some of the subjects which have been more recently introduced into the school curriculum are now attacked. When a public composed of men and women educated a generation ago, sets itself to the task of reforming the schools, it is likely to adopt too much of the spirit of the "good old times" and fails to recognize that the schools of to-day are educating the children for

entrance into a fiercer competition for which more things may be of essential importance.

I do not wish to be understood as defending all that the schools have undertaken, but I do insist that any fair judgment of the efficiency of the schools demands a careful estimate of modern necessities made by those competent by training and experience to make such judgment. A reorganization which is based upon a demand for the "Three R's" may be justified; but it is likely to be blinded to the necessity of the whole; to be carried away by the immediate interests of the majority of those concerned in the movement; and, on the whole, to cripple the efficiency of the school.

It will be noticed that each of these dangers arises from the fact that it is the public which has set itself to perform this reorganization, and from this a *third* danger arises. The spirit of democracy has been aroused and has set itself to the correction of some of the evils of political administration. At the same time this same spirit of democracy is attempting to make its schools more efficient and more economical. The machinery by which the public acts has been established for political purposes, and because the two works are going forward at the same time and by the use of the same machinery, there is grave danger that we shall have a mixture of politics with school administration. It is unnecessary for me to point out how serious the danger to the community when that condition arises, whereby appointments to positions as teachers are determined on any other standard than efficiency as instructors.

There is no more serious menace to a community than a school board composed of members who are willing to listen to applicants for positions, and to appoint them or to recommend them to superintendents who are nominally tho not actually the appointing authority. There is no graver situation than that which renders it necessary to fill all the positions with girls from the local normal school or with residents of the city, because they have friends who are powerful upon the school board. It seems, therefore, to me that great care must be taken to see that the machinery of administration which is established as a result of any proposed reorganization shall be such that only

those who have some knowledge of educational ability and some experience in judging of efficiency of education shall have the major say in determining who shall have charge of our schools.

Having now in mind that educational organization should be directed on the one side to the incorporation of such business ideals as tend to increase economy, and on the other side to the development of every means which aids in giving increased efficiency, let us consider the relation of the teacher to each of these.

To what extent is the teacher more than any other citizen concerned in the establishing and maintaining of an economical business organization? It seems clear to me that the answer is, not at all. To be sure it is of vital interest to her that such an economical administration shall exist, but this interest is personal and passive. Actively and creatively the teacher, individually or collectively, has neither the duty put upon her, nor does she possess the necessary breadth of experience, to devise or establish a system or scheme which will insure the proper distribution of supplies, the taking care of janitors, the accounting for coal, the securing of its most economical use, or the building and equipping of school buildings. Advice and assistance she may give, abuses and neglect she may point out, protests as to incompetency of janitors or insistence upon efficient service she may make; but these duties are subordinate and subsidiary, and the teacher will do well not to allow the necessity of exercising them to cause the thought to arise that she is concerned with the establishing and administration of the financial side of school organization in any other than an advisory capacity.

In a minor way she may effect much towards economical administration. It is her close scrutiny of supplies, her provision for their economical use, which, tho of small amount in a single room, yet in the aggregate saves the thousands of dollars which maintain the salary schedule or render possible some desirable improvement or extension of the work.

From the point of view of business organization, I say, therefore, that the function of the teaching force is limited to the furnishing of information and to the attempting of such eco-

nomical use of materials as shall leave available for other purposes as large as possible a portion of the school funds.

But, when we consider the question of efficiency and the teacher's relation thereto, we must say that the teacher reigns supreme. Whether considered individually or collectively, it is the duty of the teacher to promote efficiency in education. Not only may we say duty, but that in the last analysis the possibility of improvement in efficiency lies only with the teacher. It is after all the individual teacher with her particular class who is the unit upon which educational efficiency must be built. The principals, supervisors, and superintendent may have much to do with organizing these various units so that they may work together as a whole without friction and without waste of time and energy; but, unless there is efficiency in each room, the organizing ability of these officials will be of little value. It is the business of each teacher to see that her own particular part of the work is carried forward with efficiency. Upon the efficiency of each teacher the value of the whole school system depends, and that system which has any considerable number of incompetent teachers must, of necessity, be limited as to the value of its product.

The teacher's first duty is to her class. Her greatest work is that which she does with them. The only valid reason that she can offer for her retention in the service is that the work she does is efficient; that the boys and girls under her charge are getting all that boys and girls of their age and endowed with their abilities can with profit acquire.

If time allowed, I should like to turn aside at this point long enough to discuss the trials of the teacher, to point out the false standards of efficiency by which she is sometimes measured, to comfort and sympathize a moment with those of you who have been compelled to choose the bad or even the good because it complied with the standards of a dictatorial principal, even tho you knew that there was a better or a best that might have been done for your children, if you had been allowed to do it. It requires tact, perseverance, and optimism to keep steadily at that which is best when the system of administration is archaic or imbe-

cile, and when permanency of tenure and possibility of promotion depend upon compliance with methods which will produce the particular kinds of results demanded by officials in superior positions—I nearly said, by superior officials. To illustrate, I asked a teacher recently if she approved of a certain topic which I found her teaching. She said, “Not at all.” “Then why do you teach it?” said I. “Because I feel sure that the principal will include it in the promotion examinations.” “How can you tell so certainly what he will ask?” I inquired. “Because I have kept all the questions for the past twenty-two years, and that topic had been included every third year. It is due next June.”

Perhaps we should say it under our breaths, but false standards of efficiency may sometimes be found among school-teachers and administrative officers as well as among those of the outer world who judge us. It is to these false ideals that we must devote our attention to the end that desirable ideals may be established in their stead.

Collectively, too, the teachers have much to do with efficiency. The false standards by which the public judges the school may be in great measure corrected by the collective efforts of teachers. Public opinion is a peculiarly indefinite and tangible thing which, nevertheless, may be reached and shaped by perfectly well recognized means. The collective effort of teachers may find great fields of accomplishment awaiting it in this very effort to foster and create a sound public opinion which will support the teaching force in everything which looks towards increased efficiency, and which will defend and fight for them in any encroachment which lowers the quality of the work done in the schools.

The moral force of a community must be called to the support of the schools and the teaching body may become a potent factor in summoning all that which is best and purest. The danger is that, absorbed in the righteousness and soundness of our cause, we shall think we can correct the evil against which we protest, or establish the good for which we seek. We can, in fact, do neither. No evil can be permanently eradicated until the public opinion of the entire community is strongly set

against it. No good can be more than temporarily installed until the sentiment of the people has been so molded that it really believes in and supports the project. It is, therefore, the business of the teachers in their collective unity to use every legitimate means to establish and maintain a public sentiment that will render possible efficiency in the schools.

A community with such a sentiment will tax itself sufficiently to support its schools. It will not turn over the erection of its school buildings to politicians, who by the distribution of fat contracts to henchmen may pay political debts. It will not allow janitorships to be distributed to those who are lazy, incompetent, or indifferent, because the boss of the ward is entitled to so many places. It will resist waste and extravagance, not for the purpose of being stingy or parsimonious nor to the end that the taxes may be reduced, but because it feels that in order to get the most for its money as large a portion as possible of the available funds should be devoted to the channels of school expenditure which most directly affect efficiency. It will fight to prevent the distribution of teachers' positions as political patronage, and may, perchance, come some day to feel ashamed that it pays its teachers less than the average wages of the men who work upon its streets or the women who wash its windows.

The first duty, therefore, of the teacher is to see that her own room is efficiently taught. Her second is to take an intelligent and active part in the collective effort of the teaching force to create a public sentiment which shall establish and maintain conditions that render efficient service possible.

Lastly, let us consider the relation of the superintendent to the lines of reorganization we have considered. Of him, as of the teachers, it may too often be said that he lacks breadth of business experience sufficient to enable him to devise and establish a systematic business organization. He must, however, if competent, be big enough to comprehend the problem in the major outlines to the end that all efforts to promote economy may at the same time increase efficiency. His first and final purpose should be educational efficiency. He must, therefore, at one time be the strenuous opponent of efforts at economy, which, tho of appealing merit on the financial side, yet would

be harmful to efficiency. 'At another time he must be quite as vigorously urging economy so that money may be saved in one direction for the purpose of establishing or maintaining somewhere else that which is of greater educational value. While he may not devise the administrative system of the finances, it is for him to be the expert adviser of those who do; to gather together the bits of information furnished by individual teachers; to collect evidence of waste and extravagance in many places; to carry in mind the protests, and to give the whole such effectiveness of form and to choose with such tact the time and place of its presentation that it may be listened to as coming from one who speaks with the authority of full and complete information.

It is his business to maintain the schools at the highest possible standard of efficiency, and to do it with the amount of money set aside for that purpose. Or, if this be insufficient, he must be so strong of purpose, so resourceful in argument, so recognized as a man of integrity and honesty, that he may summon to the aid of the schools all the forces which go to make up a healthy and enlightened public sentiment—a public sentiment not only willing, but insisting that the schools shall have every dollar that can be wisely and profitably used.

On the other hand, he must be a leader in education. It is his to see that only efficient teachers are secured or retained, but especially must he see that the conditions under which the teachers work are such that the highest efficiency is possible. He must not be the taskmaster driving the workers to the greatest possible effort, but rather, the wise overseer who promotes efficiency by enlarging for each teacher the possible field of effective service, a field which she shall willingly and gladly fill of her own initiative.

As protector and friend his relations to the teaching force may be of greater value even than his educational leadership. When false standards of economy threaten to reduce salaries, or false standards of efficiency, whether those of the public outside or of subordinate officials inside, create harassing conditions, he should be such a man as will bring effectively to the rescue the collective efforts of the teacher, unite with these a

multitude of forces external to the school, and form the whole into an impregnable defense behind which the schools and the school-teachers may remain unharmed.

Finally, it is upon his personality and character that the avoidance of the third great danger depends. If he lacks the stamina, if he is deficient in courage, if he is wanting in tireless energy or in tact, the questionable influences of politics will encroach upon the schools. It is his business to distinguish clearly that recommendation which is founded upon knowledge of efficiency, from that recommendation which is made from political expediency or that which finds its real basis in friendship.

He must be clear-headed enough to distinguish his own friendships from his professional opinions, to exalt the duty of his position above his desire as a friend, and to recommend appointment or promotion to those personally less agreeable to him, if they are professionally the better equipped. Only when it is clear that he is not "building a machine," that he is not "taking care of his friends," but that his sole aim is fair play and promotion according to professional ability, can he hope to secure the confidence of a public which for a generation has been accustomed to see its public officials governed by friendship and political expediency.

It is for the public to carry forward the reorganization as they must and will. It is for the teacher to see that the work of the schools is efficiently done and to contribute as much as possible towards the establishment and guidance of public opinion. It is for the superintendent to stand between these two forces, guiding and advising each; at one time using public opinion to force something upon the schools, at another valiantly defending the schools from the attacks of a public sentiment temporarily inspired by false standards. He must for the public be at the same time both servant and master, and for the teachers both leader and friend.

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III

MODERN TREND OF PHYSICS AND CHEMISTRY TEACHING¹

The excellent paper on College Entrance Examinations² which was read at your meeting one month ago contains one suggestion which I heartily adopt as the central theme of this paper. It is *more descriptive and less mathematical physics* (and I may add) *chemistry*.

The history of physics teaching in secondary schools for the last 25 years naturally divides itself into two periods. During the first 13 years of this period physics was taught without help or hindrance from the colleges, and it progressed against fearful odds until 24 per cent. of all secondary-school pupils were studying the subject; during the last 12 years the colleges have dominated the physics teaching in the secondary schools thru their syllabi interpreted and enforced by their examinations, and it has declined until the number of pupils in physics has been reduced to 10 per cent. Twelve years ago 24 per cent. of the students took it voluntarily; now a considerable portion of the 10 per cent. take it only by compulsion.

The kind of physics which was taught during the first period is well represented in the earlier editions of Gage's and Avery's text-books. It was descriptive of matter of universal interest and abundantly illustrated by experiments exceedingly well adapted to make the subject real. I have been collecting testimony for the past 18 years from persons all over the country who studied physics then, and I find that the general feeling is that it was both interesting and profitable. Such testimony has been steadily changing into adverse criticism of the physics teaching of the last 12 years.

In recent years physics teaching in the colleges also has been

¹ Paper read at meeting of New York Schoolmasters Association, December, 9, 1905.

² By Mr. Wilson Farrand. See EDUCATIONAL REVIEW, January, 1906.

growing more unsatisfactory to general students. It is becoming more and more deficient in both the humanitarian and the practical elements. It does little for general culture and less for common sense. It is good preparation for neither investigators nor engineers, and least of all for the ordinary citizen. In recent times college men have set out to *know only one thing*, and have omitted to conquer a sufficient field of related knowledge to understand any one thing well enough to teach it. We have witnessed the attempt to force the worst features of college instruction upon the secondary schools and we have in many cases seen young men come directly from such a régime of college physics to teach in our secondary schools. They confine themselves to that disjointed skeleton of dry bones, the forty quantitative experiments. They use them as simply isolated, detached mathematical problems. They make no logical connections. They know little of an articulate whole. They know nothing of practical applications of physical principles, and they know nothing of the correlations of physics and chemistry with botany, zoölogy, physiology, geology, geography, and the like. Of course they cannot clothe their skeleton of forty experiments with symmetry and beauty, for they have never been taught any such thing in physics. They deal in academic discussions about per cents. of error. They present nothing as organized common sense, which was Huxley's idea of science. It is not because these college entrance requirements are difficult, but because they are a misfit that they are uninteresting and the pupils have the good sense to dislike them. Until the makers of the physics syllabus exhibit a greater knowledge of the science of teaching, we may conclude that the desires of the great majority of high school pupils furnish us the safest guide to what is pedagogically correct. As one of your members said here last month, "These college entrance requirements have been shaped by specialists whose interest has been in the subject rather than in the student." They do not understand high school pupils. How can they understand what will fit them for college? The chief trouble with high school pupils when they pass into college is not that they are deficient in mathematics or in the art of making accurate measurements, but that they

do not generalize, and the work prescribed is not calculated to help them learn how to do so. The claim has been put forth that this is a "good stiff course in physics," that it is equivalent to Greek forsooth, and every other course has been characterized by opprobrious titles. Their favorite expression of contempt is "sugar-coating the pill" and the favorite expression of satisfaction with this work is "a self-respecting course in physics." Now I cannot discover why this course should be called "good" or "stiff" or even "physics." (One professor of mathematics says he is willing to accept it as algebra and geometry.) I presume no teacher ever has or ever will get what may properly be called "good work" from a student except by the force of a "compelling interest." Let us consider what there is in these experiments which a reasonable high school pupil could object to.

A considerable number of them are clumsy, tedious ways of getting results which the pupils know they can get by more direct means. A great ado is made about getting the specific gravity of wood. All wood is heavier than water, but they set out to prove that a certain block is half as heavy as water. It floats on water for the same reason that an empty bottle floats. If we let the water enter and drive out the air both sink. It makes a difference whether the wood comes from inland or sea shore; from the north side of a hill or the south side; whether it is green or dry or kiln-dried; whether it is summer or winter. In winter our closet doors shrink so that we can poke our fingers thru. In summer they swell so that we cannot shut them. They try to coat the block of wood with paraffin so that air shall not get out nor water get in. No one has yet learned how to keep wood from shrinking and swelling. The pupils, who are often wiser than doctors of philosophy, know that their teachers are making a pretense of getting the specific gravity of this block of wood merely for the sake of an academic discussion. Now note how they proceed. They simply want the weight and the volume of that block. The weight is procured directly, but the volume, which might be procured directly by measuring a regular-shaped block, is thought to be more accurately found by measuring the amount of water which it will

displace. And instead of sticking a pin into it and thrusting it down into a vessel full of water and measuring the overflow, they tie a lead sinker to it so as to introduce more mathematics into the problem. They spend weeks finding the specific gravity of various things by various methods; finding the breaking strength of a wire; comparing wires in breaking tests; finding how much a wire will stretch; bending laths by varying loads; bending laths of varying dimensions; twisting laths—all to no purpose. It has no connection with anything else either in the course or out of it. Nearly the whole of the first half-year is spent on this work which is related to nothing. Meanwhile the students are eager to get into electricity, but when at last they reach that subject they are cruelly disappointed because everything that has a practical bearing is carefully eliminated and academic discussions are substituted about things never met outside the school laboratory. The experiments in electricity are such as no electrical engineer would have any patience with.

Teachers who watch every opportunity to nip in the bud any symptom of interest or enthusiasm select the coefficient of expansion of iron as a subject worthy of a whole week's study. The sole aim of the work is to have the pupils determine whether a rod of iron will expand by one twelve-millionth part of its length for one degree rise in temperature. They first consider at some length the sources of error, and discuss the efficiency of the apparatus. The whole rod must be brought to a uniform temperature. It must therefore be surrounded by a hot-water or steam jacket. The thermometer must be placed in such a position as to get the true temperature of the rod itself. There must be some sort of multiplying apparatus to measure such slight increments of length and this will introduce some mathematics which will exercise a wholesome restraint upon enthusiasm. The experiment is performed and the results are discussed again with reference to sources of error. The class average is taken and compared with standard figures, etc., etc. Now if that is the end of the whole matter (as it very often is) it seems to me not worth while. It is not "stiff." It is stupid. The pupils are not complaining of hard

work, they are objecting to stupid work. They are capable and willing to do much harder work if it appeals to them as worth while.

Suppose now we treat the expansion of iron by first performing some of the many simple, ingenious, and beautiful experiments which illustrate it. Let some of these be lecture experiments and some individual laboratory experiments. Let the question arise what will happen to a steam pipe 1000 feet long when the engineer puts on steam and raises its temperature from say 60° to 212° . It will lengthen about one foot. The class will be interested in calculating that from data given in the text-book, and certain pupils will want to verify the data by a quantitative experiment on the coefficient of expansion. A few optional experiments are always needed to give to the brightest pupils in order to keep the class abreast. The whole class want to go on an excursion about the building to see what provision is made for this expansion of the steam pipes and hot-water pipes. They want to know what provision is made for the expansion of the iron work of the Brooklyn Bridge between winter and summer. And they would be glad to calculate how much that expansion might be; how much a wagon tire 5 feet in diameter is stretched by heating it 500° for purposes of setting it. Illustrations of this sort can be multiplied until a week is thought by the class to be all too short for the subject, if that were desirable.

I do not believe that high school pupils are lacking in either willingness to work or ability to work. They are patient sufferers with what they know to be poor teaching.

Secondary schools are not dependent upon the colleges. They depend directly upon the public, and the colleges are equally dependent upon the public. Certainly no subjects are nearer to the public mind than physics and chemistry, and public sentiment will in time settle these questions for both colleges and secondary schools. It will undoubtedly determine that the secondary schools shall teach such physics as all girls and boys in the schools may pursue with profit to themselves. (Some teachers are now congratulating themselves that they have crowded out of physics the great majority and have left.

only the mathematical elect, and some teachers of physics avow it to be their purpose to kill enthusiasm wherever they find it.) Public sentiment will further determine that the colleges shall receive any pupil who has been taught according to his own needs and that the colleges shall learn how to continue his instruction according to his own needs. I presume that in both the secondary school and the undergraduate college, physics will in time be humanized. It will be taught with reference to its practical applications, not solely for commercial reasons but also because of its universal human interests.

As indicating the modern trend of thought on this subject, I will present numerous quotations from various writers and speakers.

Professor Hall of Harvard is doing us the great service of reproducing in the EDUCATIONAL REVIEW considerable portions of the report of Professor Karl Fischer of Munich on his studies of the prevailing condition of instruction in physics and chemistry in the secondary schools of various countries. The articles contain much of what appears to be a consensus of opinion from many countries. They abound in such phrases as these:

"Mathematical developments [in physics] are to be avoided . . . more stress is to be laid on the spirit of the method than on technical details . . . the calculations kept as simple as possible, should be based on actual relations. . . . Numerical problems, in and for themselves of little profit, should not be given in greater number than is necessary to insure the insight of the pupils into the relations exemplified in the problems. . . . The striving after too great precision is a mistake . . . demonstration instruction should be made as practical as possible . . . theories without interest, calculations which have nothing to do with realities, are to be dropped. . . . The object is not to make of the pupils accomplished physicists but to make them acquainted with the great laws of nature and to lead them to give account to themselves of the operations which they see going on about them. . . . Official programs prescribe too exactly the matter to be taught."

Professor H. E. Clifford, of the Massachusetts Institute of Technology, said a few months ago before the Eastern Association of Physics Teachers: "In any course of physics the fundamental instruction should be by classroom work which should be made more vital by the laboratory. The classroom comes first in usefulness and efficiency in instilling the fundamental ideas, and the laboratory second. A well-illustrated course of lectures is more valuable than a well-equipped laboratory. The laboratory work should be qualitative, not quantitative. It should aim at accuracy in observation, not accuracy in measurement. The explanation of every-day phenomena is the true function of high school physics."

Professor W. S. Franklin, of Lehigh University, one of the examiners in physics for the College Entrance Board, said recently at a meeting of the New Jersey State Teachers' Association: "It is not important that high school physics should be quantitative or mathematical, it should be *phenomenology*."

President Stanley Hall, as quoted by Professor Charles Baskerville to the New York Chemistry Teachers' Club:

"The finest expression on the face of a child seems to me to be that of open-eyed and often open-mouthed curiosity and wonder. The objects of nature charm and entrance the soul, which for the moment becomes almost one with her. . . . This divinest thing in childhood, which only bad school methods can kill, which prompts the primeval experiments of infants in learning to use their senses, limbs, and minds upon nature, is the root of the spirit of research, which explores, pries, inquires, so persistently, and often so destructively in older children, and comes to full maturity in the investigator behind the telescope or microscope, in the laboratory, seminary, library, or on exploring expeditions."

To which Professor Baskerville adds his own words: "Each one of us has done his little research in college or university, and knows that it was but an extension of his experience as a boy. . . . Having once breathed that fragrance of the new, having once been allowed to pluck a seed from the unknown storeroom of the Almighty, having once nursed it into a flower, however beautiful or unattractive, I fail to see how one, by the

very fever of the thing, could look on that one creation and not be swept along by the desire to make a garden of such joys, for each birth is a happiness, not solely for selfish pleasure, but that the world might also look in and rejoice."

Professor Louis Sherman Davis, Indiana University: "Interest in a science is proportioned to the immediate bearing which its subject-matter has upon the life of the student. Hence the matter and processes with which chemistry deals should touch the student's life as closely as possible."

In accordance with this view he arranged his text-book so as to teach chemical principles in their relationship to industrial purposes, such as preparation of iron and steel, explosives, artificial ice, illuminating gas, baking powder, petroleum, butter, soap, sugar, glass, paints, etc.

Professor C. R. Mann, University of Chicago, in *School science*, October, November, and December, 1905:

"If an instructor has once clearly grasped the fact that the so-called principles and laws of science derive their final accuracy from our powers of abstraction, can he confine the student's attention so assiduously as is often done to a per cent. and half a per cent. of error? Far be it from us to decry the importance—nay, the vital necessity—of such considerations of accuracy in advanced research work. But do we not sometimes forget that the high school pupil is not a research specialist, and that he is as a rule not enamored of great accuracy? Do we not then develop rather his manual dexterity than his reason and his imagination? . . . do we not often fail to make use of the vast fund of physical experiences which everyone necessarily possesses simply because he has lived on this planet? Yet we often reject in whole or in part this fund of real experience and expect to develop a system that shall be comprehensive and exact on the basis of comparatively few rather clumsy stock experiments with half a hundred percentages of error thrown in for good measure."

"But the real vitality of physics is not in these external signs and symbols, but rather in the human part—the scientific imagination; and any student who leaves his physics class for the last time without ever having felt an inspiration to ponder

over and try to form images of the operations of the world forces amongst which he lives, has been filled with husks and empty forms and dwarfed in soul and mental growth. . . . When we 'fix' [physical laws] into a system of dogma, develop them into a logically perfect series, and then dole them out to growing, living, thirsty souls . . . we are but exhibiting to them a veritable 'physical mummy' and should not be surprised if the children turn from it chilled with indifference rather than warmed with enthusiasm."

"He [the student] usually has a large amount of qualitative personal experience with the subject-matter of science, and can generally obtain a large store of personally observed facts in the routine of his daily life. . . . It is an interesting fact that children trained to observe carefully and to reason from these observations clearly and in freedom, remember both the facts and the conclusions better than if they are taught the conclusions as a matter of authority. Tho it may seem paradoxical, it is yet true, that if we make it our aim to teach the facts and principles of science, we fail; but if we have as our sole purpose the development in the children of this scientific attitude, they not only acquire that most valuable possession, but also learn the principles better. Moreover, by the adoption of this aim, the sciences become truly correlated. . . . A vast advance over the methods at present in vogue in science teaching could be made if each teacher would try to present his subject more from the historical and concrete side and less in the purely logical and abstract one—if he would try to connect the history of his special subject with the grander general history of thought—and of human activity."

"We need to get closer to Nature and to absorb the warmth of the greater human life about us. We do not need new and more ingenious apparatus in our laboratories; nor yet novel and elegant methods of demonstrating this or that principle; but greater outlook and wider sympathies—in a word, less *impedimenta* and more human life."

Professor Mann has written a high school text-book of physics "to meet," as he says, "the new demand that has been made on the subject by the general public. . . . The aim has

been to show the student that a knowledge of physics enables him to answer many of the questions over which he has puzzled long in vain." He aims, as he says, to "appeal to students on the humanistic side." The numerical examples are free from mathematical intricacies, and are based largely on the practical problems of every-day life. "The latest discoveries and theories in science are presented, both because young people are known to be interested in them and because they serve as nothing else can to develop the scientific imagination. . . . The mastery of principles and methods in scientific study depends on the awakening of interest and self-activity more than any one thing."

Before the New England Association of Chemistry Teachers Professor F. L. Bardwell, of the Massachusetts Institute of Technology, said: "Instruction [in chemistry] should be along qualitative lines. It may be wise to introduce some quantitative work, but he who loses sight of the qualitative side of quantitative experimentation loses sight of rare beauties in Natural Science and causes in his pupils the sort of distorted mental vision which cannot see beyond the cross hairs of a telescope or discern any phenomena which are not connected with the swing of the pointer of a balance . . . don't forget the one essential thing in laboratory work—*observation*, which must be qualitative before it is quantitative . . . let laboratory experimentation be employed to drill the pupils in careful manipulation, not necessarily highly refined and accurate measurements—and then above all in observation and inference. Pupils should be encouraged to discover principles—to generalize; and it is well to arrange certain experiments which are not complicated and which have not been preceded by special instruction so that the beginner may have opportunity to generalize without prejudice."

Professor F. W. Clarke, in *Science*, October 23, 1903, says: "The man who could not see the forest because of the trees was a good type of that scholarship which never rises above petty details. It may compile encyclopedias, but it cannot generalize."

Someone has said: "Avoid formulas. Most high school

pupils work with formulas in a very mechanical way and fail to get the rationale of the matter. It is only to mature minds that formulas represent the gist of the whole matter."

Professor H. H. Goddard, State Normal School, Oshkosh. Wis., *School science*, October, 1905:

"A great company of the great men of science is open to our acquaintance among the leaders and investigators of the past. . . . Their names cannot fail to excite the wonder and admiration of all who have followed the achievements of science and can be moved by the attainments of the human mind. . . . These men live in the triumphs of their investigations into the mysteries of science and in the heritage they have left us from the secrets of truth. . . . Every student of science should learn something of the great difficulties which have been overcome in the progress of this line of study. . . . The story should be known of how Scheele subjected himself to deprivation and even poverty in order that he might give his time and talent to scientific discovery. . . . The story of Roger Bacon should be told,—of his splendid talent, of his untiring efforts to illuminate the darkness and ignorance of his time by the searchlight of truth, and of the persecutions which he endured as a result. . . . The lessons of self-sacrifice and of loyalty to truth which are shown by these and many others are of great educational value. The opportunity for such lessons can scarcely be excelled in any other line of study outside of the field of science. And such lessons are especially needed in these days of commercialism and self-aggrandizement, when it is so common to associate successful careers only with the accumulation of wealth."

"What we as teachers can do is to acquaint our students with the fundamental principles of the subject, let them see a few of the interesting applications of these, and then not neglect to inspire them with the splendid story of the growth and development of the science, how it has moved forward little by little, now retarded by error, but again pushing forward with tremendous bounds under the guidance of truth, until with the dawn of the present century its achievements are the wonder of the world."

Professor Sedgwick on Physiology, in *Science*, September 18, 1903 (his words may very well be applied to physics and chemistry):

"Not only in childhood but thruout life we do not care greatly about the parts of a machine unless we know or can guess their use. The instruction in physiology should aim at the outlines of the more important functions. . . . The pupil should understand that the heart is a force pump, but it is not necessary that he should understand the exact structure or mechanism of the auriculo-ventricular valves. We must teach less about anatomy and histology and more about the germ theory of disease, about polluted water and polluted milk. We must simplify every statement and eliminate the unimportant. We must not seek to make of physiology a training in the precision of measurements or in scientific method. We must keep steadily in view the practical object . . . the rational conduct of physical life. We now teach history and economics and civics with some reference to the future life of the public school pupil as a citizen."

He speaks of "arousing a *compelling* interest in the subject." He also has something to say about "arid osteology."

For the relief of high school pupils and teachers I propose:

(1) That the teaching of physics and chemistry in secondary schools should be less mathematical and more descriptive.

(2) That, in order to secure greater freedom in the teaching of high school physics, the official list should be increased by the addition of qualitative experiments, and that teachers should be free to choose from the whole list any thirty-five to present for college entrance.

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IV

A PROBLEM IN EDUCATION, THE SURVIVAL OF THE UNFIT

I—*The problem in secondary education*

That the training of the Nation's youth should be ideal will be generally admitted by those who have the welfare of the nation at heart. The plea that the children are to become the future citizens of the country is strong enough in argument to reach an affirmative answer under almost any condition of controversy for improvement in education.

Everyone will readily agree that the future citizen should be thoroly trained for the responsibilities of citizenship. Individually the citizen agrees that the best in education is none too good, and it is a matter of interest to study the methods used to obtain this supposed best.

Methods for instruction, ideal in many ways, to meet the conditions for education have come and gone. Other methods are with us at present but will gradually disappear, and they in turn be replaced by new ones. As we study the educational methods of the past we find in them much that is of value in their original form. An educational ideal is proposed, and at first it is like a beautiful garden of flowers, promising to bloom in the future for years to come. Those who have charge of the garden are not as expert as they might be trained to be and weeds are introduced. Many of those who are in control know very little difference between the flowers and the weeds, and as the weeds do not require the attention necessary for the proper growth of the flowers, they may be allowed to take ultimately the place of them. Weeds are only, as we are told, undesirable plants and if weeds are preferred, the flowers cease to exist and may even be regarded as weeds, the weeds becoming the pride of those in charge of the garden. A realization that a system of education is simply a mass of educational weeds is

seldom reached unless it is the result of the work of some reformer without the influence of that method of education. The method is rejected by degrees because of its faults, which are due to the degeneration of the original ideal and lack of proper culture and growth. The educational ideal should meet all demands made upon it, and when it does this the various reformatory processes which are so costly will not be required. A question upon which we may well ponder and ask ourselves is, Why does not an ideal have a continuous growth and why are reforms necessary? Is it the environment which governs those placed in charge of the system and therefore does this environment indirectly control the system of education? If so, we must consider the problem within the bounds of the psychology of the crowd, or mass psychology for the reasons which cause the degeneration of the educational ideal.

The public school system is controlled by boards which represent and are elected by the people. The impulses which control in the selection of the boards are those which naturally appeal to the crowd in order to secure election to the position.

Le Bon states:¹ "Affirmation pure and simple, kept free of all reasoning and all proof, is one of the surest means of making an idea enter the mind of crowds. The conciser an affirmation is, the more destitute of every appearance of proof or demonstration, the more weight it carries." The affirmation, constantly repeated in the same terms, is made to have great influence. The result of this condition is that seldom, if ever, appeal is made to the community because of a person's knowledge of education fitting him for the position on the school board. On the other hand, we hear that he is a taxpayer and naturally is interested in the schools. Again he is a father of a number of children, but little is said whether he has any knowledge of how to raise children, the contrary generally being the case. The policy of the community towards its system of education varies greatly, resulting in many cases in constant changes in the officers and teachers in charge.

The board which is formed from this method of selection cannot be constituted for the best results. The result is a

¹ *Psychology of the crowd*, p. 121

group of individuals whose knowledge of the subjects with which they are expected to deal is limited, and they may be controlled to a great extent by other influences besides those which are the best for the community.

The average citizen does not hesitate to express his opinion on questions relating to the two great subjects of education and medicine, however much he may hesitate to do so on the question of street-paving or house-building. As a result of the fact that knowledge of medicine is assumed to be a part of a natural inheritance it is said that about 90-95 per cent. of the population of our country are subjected to the operations of the quack with his cure-alls and electric batteries. It matters not to the owner of the electric battery that his appliance has for over a century proven to be worthless. He prefers a combination of his personal opinion with a somewhat faltering one of the quack, to the opinion of the trained physician. In education there is the fakir who rushes into the field with a remarkable method or course of study, promising to accomplish wonders with it. He appeals to the masses and immediately we have a problem of the psychology of the crowd instead of one of education. The conditions which govern the community are also largely in control of the educational system. This tendency to freely express opinions on educational subjects is taken advantage of by the fakir in education and the result is the same in education as it is in medicine from the action of the medical quack. The resulting influence is brought to bear on the school board with results which are in many cases disastrous. The attention given to the education of the children is largely an indication of the future growth of the race. It is stated that the decline of the Roman Empire was not because of the lack of the intellectual training of its citizens, but was due to the degeneration of their character. Yet is it not true that the citizens of these countries did not heed the warnings which came to them to care for the children in their education?

Plutarch² suggested the method of training of children at that time as follows: "Nor are we to omit taking due care, in

² *Works, miscellanies, and essays*, I, p. 9.

the first place, that those children who were appointed to attend upon such young nurslings and to be bred with them for playfellows, be well-mannered, and next that they speak plain, natural Greek; lest, being constantly used to converse with persons of a barbarous language and evil manners, they receive corrupt tinctures from them. For it is a true proverb, that if you live with a lame man, you will learn to halt.

"Next when a child has arrived at such an age as to be put under the care of pedagogs, great care is to be used that we be not deceived in them, and so commit our children to slaves and barbarians or cheating fellows. For it is a course never enough to be laughed at which many men nowadays take in this affair; for if any of their servants be better than the rest, they dispose some of them to follow husbandry, some to navigation, some to merchandise, some to be stewards in their houses, and some, lastly, to put their money to use for them. But if they find any slave that is a drunkard or glutton, and unfit for any other business, to him they assign the government of their children; whereas, a good pedagog ought to be such a one in his disposition as Phoenix, tutor to Achilles, was."

If the suggestions made by Plutarch had been heeded at this critical time, would it not have been possible to have prevented the dégenération which resulted in the educational ideal? The cause of the disaster to the Greek nation is given by Davidson:³ "Its defects are all summed up in one. By substituting philosophy for religion; by cultivating unduly the abstract reason, which is the organ of the former, and ignoring the supernatural sense, which is the condition of the latter; by placing the supreme activity of man in intellectual vision, instead of in moral life guided by vision, love, and a good will, it failed to put itself in living relation to the supreme principle of that moral freedom which is the 'chief end of man.' In consequence, Greece not only perished herself, but she left an example by following which other nations have perished—yea, and other nations will perish, unless, warned by her fate, they make all education culminate in the culture

³ *The education of the Greek people*, p. 229.

of the spiritual sense which reveals God, and so place religion on the throne that belongs to her as the guide and inspiration of life."

Davidson ⁴ writes regarding the Romans: "The profession of teaching was despised, teaching fell into the hands of men who were fit for nothing else—generally freedmen, or even slaves. The fact that they took pay for their services brought them into the same category as the carpenter and the shoemaker, and they were treated as these were. It was only in imperial times that rhetoricians, like Quintilian, enjoyed some consideration."

It is readily seen that such ideals in education would naturally result in degeneration of character, as may be shown by the description of Roman character by Ihne.

"The Romans were a cold, calculating, selfish people, without enthusiasm, distinguished by self-control and an iron will rather than by graces of character. They were proud, overbearing, cruel, and rapacious."

The history of the decline of any nation presents a pitiful scene, but the beginning of a nation's decline is the neglect of the rights of the children. The spirit of education is like the spirit of a nation. The ideal may be raised higher by constant effort on part of those who are self-sacrificing and the ideal may be destroyed by the inrush of barbarians with ideals of the crowd. The spirit of education of a community is the result of the history of education in that community. If it is a spirit which is of value it is the result of the highest effort and it is the most valuable heritage which the community can possess, but it is never reached by efforts within the domain of the crowd.

Bishop Spalding ⁵ calls our attention to the present tendencies in secondary education in our country in the following selection:

"Whatever the cause may be, the fact is that in the fields in which large numbers of women are employed, labor is cheap; and it is the cheapness of labor, and not their superiority as

⁴ *History of education*, p. 111

⁵ *Thoughts and theories of life and education*, p. 228.

teachers, which makes competition with them for positions in our primary schools so difficult. That this is a very grave evil is obvious. They who are content to accept cheap work in the school can have no idea of the meaning of education. They would degrade it to a mechanical process, and imagine that the teacher does his whole duty when he makes his pupils learn to read and write, and gives them some knowledge of arithmetic, geography, and history."

Most of those interested in the condition of secondary institutions can find much in which to agree with Bishop Spalding. "The lower cannot call the higher" is a condition which will always confront education in our free country. The higher cannot be replaced by the lower with the expectation that success will result because it is the will of the majority. As the appeal to the crowd is made the basis of selection for the control of the education in public schools, so will the conditions control for the survival of the unfit in secondary education. The methods of education will continue to come and go at the cost perhaps of the loss of the national soul of the people.

This condition in our education as a whole has been criticised by Professor Laurie, who states that "America is an uneducated country as we now understand education. It possesses no national system; it has not even the machinery whereby education could be given in the sense which it is given in Great Britain or Germany." These are rather hard words for those who take pride in their country. Such a criticism from one of Professor Laurie's standing cannot be cast aside lightly, but yet our hope is that a remedy may be found in our higher institutions which are striving, in spite of the tendency of survival of the unfit, to aid in the great work of saving our country for the future. The tendency in America to appeal to the public is seen by Munsterburg,⁶ to be one of our serious problems, for he says: "A child who has himself the right of choice, or who sees that parents and teachers select the courses according to his tastes and inclinations, may learn a thousand pretty things, but never the one which is greatest of all: to do his duty. He who is allowed always to follow the paths of least resistance never develops the power to overcome resist-

⁶ *American traits*, p. 69

ance; he remains utterly unprepared for life. To do what we like to do—that needs no pedagogical encouragement: water always runs down hill. Our whole public and social life shows the working of this impulse and our institutions outbid one another in catering to the taste of the public. The school alone has the power to develop the opposite tendency, to encourage and train the belief in duties and obligations, to inspire devotion to better things than those to which we are drawn by our instincts. Yes, water runs down hill all the time; and yet all the earth were sterile and dead if water could not ascend again to the clouds, and supply rain to the field which brings us the harvest. We see only the streams going down to the ocean, we do not see how the ocean sends up the water to bless our fields. Just so do we see in the streams of life the human emotions following the impulses down to selfishness and pleasure and enjoyment, but we do not see how the human emotions ascend again to the ideals,—ascend in feelings of duty and enthusiasm; and yet without this upward movement our fields were dry, our harvest lost. That invisible work is the sacred mission of the school; it is the school that must raise man's mind from his likings to his belief in duties, from his instincts to his ideals, that art and science, national honor and morality, friendship and religion, may spring from the ground and blossom."

Fortunately for the supply of rain definite laws control the source, but whether Providence will supply the pedagogical source is a serious problem for the educational world. The elective studies, if restricted to the group system, or if the soul of the institution is such that the highest ideals are in control, may be successful in many ways.

To simply conclude that because the Declaration of Independence should state "that all men are created free and equal, that they are endowed by their Creator with certain inalienable rights" does not necessarily lead one to conclude that a self-chosen course of instruction, largely along the lines of least resistance, will develop men equipped for their work in life. Again this survival of the unfit has attracted the attention of our humorous philosopher, Mr. Dooley, who says in his

characteristic way, in speaking of the student's entrance into college: "Th' prisidint takes him into a Turkish room, gives him a cigareet, an' says: 'Me dear boy, what special branch iv larnin' wud ye like to have studied f'r ye be our compitint professors?'"

The introduction of a fad in education results from this tendency to introduce into studies of the schools anything which may appeal to the people in its novelty. Whether it has any reason for being introduced is seldom considered.

Redway⁷ states: "When we are willing to admit that the development of a sturdy moral character is the one essential end of education, and that the cultivation of the other faculties is a secondary matter which may be approached from many sides, and by a legion of methods, there will be fewer opportunities for the fad in education to become an epidemic. One may foist an imitation of his own ways upon another, but in doing so he destroys individuality without giving anything in the place of it—no matter whether the relations be those of principal and assistant, or teacher and pupil. No advance steps are beneficial to an individual, a class, a people, or a race that do not flow from a natural growth of the mind or from a self-conviction as to their needs. The greatest problem in education, therefore, is not so much the unmasking of fundamental principles as the discovery of the conditions and rate of their assimilation. When we have mastered this problem, rational processes will not be apt to degenerate into fads."

Here we have another instance of the survival of the unfit. Yet how many ever think that when a fad is introduced to add to the burdens of their children in many cases it has no educational value whatever? If the fad is suggested, it is associated with such ideals that it appeals to the parents and they do not hesitate to pass a favorable opinion upon it without the least thought upon the matter. When we hear the praisemonger tell us of our system of education we pride ourselves that it is a progressive one, yet a recognized authority⁸ tells us that "If the teachers could make the schools

⁷ EDUCATIONAL REVIEW, II, p. 181.

⁸ A. B. Hart, EDUCATIONAL REVIEW, 13, p. 484.

what they themselves desire, there would not be the necessity for so much discussion about educational reform. What we need is a reform in the public opinion of the average American. Common schools is a splendid term; 'common' is a splendid word. But there is such a thing as commonplace, and, in general, what we need in our schools on the part of parents and the community is a higher average standard as to what they have a right to expect of the schools, teachers, and governing boards."

We cannot but feel that great improvement is necessary before the system of education will educate. The citizen must awaken to the fact that the expenditure of large sums of money does not necessarily insure the best of education. The duty of supplying the finances is only the basis of the great work. Responsible men who realize what responsibility is, are also necessary. Responsibility to many simply means privilege to develop their hobbies. The great need of the day is the realization of the citizens that they are responsible for the schools of our country and that they should be taught by and under the control of responsible men. When our people can be made to see the great cost of this lack of interest and its future danger, then the future of the schools will be brighter.

The lack of interest on the part of the public has given many of the schools into the hands of irresponsible persons. As an illustration of this condition we have the following statement:⁹ "With all deference to the faithful and conscientious ones, in many instances the school fund is being wantonly and unrighteously wasted. Men and women who have made a failure of their own lives and enterprises are to-day occupying these positions. Men engaged in managing the organizations of the different political parties have undertaken to control appointments in the interests of their party machines, and the downright scoundrels have infested the school organization in some places for the sake of plunder. It is this deplorable state of affairs that is driving democratic American into the arms of the bureaucrat."

These are hard words for those who have the future inter-

⁹ Hughes, *The making of citizens*, p. 150.

ests of our country at heart. Yet can we say that they are not true? In many places, no doubt, they are not true, but when we study the political measures which the public allow with indifference to be a part of the selection of their school superintendents are we not in a position to read something like the following:¹⁰ "The school superintendent, like all other American institutions, varies enormously. He is often merely an artful politician, a skillful wire-puller, and absolutely destitute of any educational qualification for his high post. He devotes a small portion of his time to his work, and his main interest in the school is concerned with helping his political friends. But of that type of superintendent we will say nothing more here. We would rather devote our attention to the skilled experts who are generally found at the head of a large city organization. Too often their tenure of office is as uncertain as that of the teacher, and the wonder is that these distinguished men are content to fill such precarious posts."

Those who have seen the selection made by various cities of superintendents of their schools cannot but feel that there is much truth in such a statement. We must not imagine, however, that such conditions are favorable to the production of expert teachers. It has been stated in a recent report that teachers are bred not born. One cannot be attracted by unfavorable conditions for development, by low salaries and lack of appreciation, and the result is that it is doubtful whether the teachers who are educated for teaching remain in their chosen work for any length of time. The professional life of the teacher in America is said to average five years, while that of the country teacher is two years. At a period in the child's life which can be made of such lasting value if proper instruction is given, is it not a wrong to the child and to the nation's future that the schools do not receive attention from those who are responsible? Does not such a condition appeal to us and show us that the best fitted for the work of teaching leave the field for other occupations? Henderson¹¹ tells us that "One cannot be in the world any great length of time without com-

¹⁰ *Ibid.*, p. 154.

¹¹ *Education and the larger life*, p. 72.

ing to distinguish in a broad way between two classes of people, those who are alive and those who are not, the live souls and the dead souls. The live souls are the people of power, the people who are and who do. The dead souls are the people of weakness, the apathetic mortals who are nothing and who do nothing. The difference is very real, the difference between red blood and yellow. There are all shades and degrees between the people of power and the people of weakness, but the extreme types are sufficient to point the lesson."

The question is, Will we have the red-blooded type for our schools or shall the conditions favor the yellow? This indifference not only makes itself manifest in the conditions of our schools but the students themselves are products of such an environment, and naturally they do not receive the best that should be given them. The products of the schools must be so equipped that they can earn the means for existence. If they go into business it is a problem for them to adjust themselves and they should be trained for this purpose. We think perhaps from lack of knowledge that all is well with the students and pity our tramps, wishing that they were educated so that tramping would not be necessary. We are surprised, therefore, to learn from investigations that the tramps are the product of our school system. If the young man decides to go from the public school to the college he is somewhat of a problem to the authorities there; as Dean Briggs¹² tells us, the young men in their actions say: "If you want us to be virtuous, heroic, learned, and accomplished, they practically say to the church, the school, the college, to their parents, you will have to exert yourselves. We want to gratify you, but will tolerate nothing dry, nothing hard, nothing ascetic. The duty of the preacher or professor is to waft us to Heaven or Parnassus on gentle zephyrs; otherwise each must endure the pain of seeing us conclude to go somewhere else."

Much more may be added to indicate the unsatisfactory conditions of our secondary schools, but our interest must be transferred to the higher education.

¹² *School, college and character*, p. 251

II—*The problem in higher education*

The institutions for higher education are in their relation to secondary education as the peaks of a mountain range are to the hills, they rise higher than the surrounding hills and attract attention from the observer before the lowlands are seen. Every institution has its own history and the characteristics which it possesses are the result of its history. In general these institutions have certain characteristics in common which permit them to be classified into certain grades according to their efforts to encourage that which is good and true in education.

The ambition for a college education is a worthy one for every young man, and as he draws near the time when the decision must be made in the selection of a college for laying the foundation for his future career, the problem becomes a very serious one for him.

To a vast number of students who enter the colleges each year the question may often present itself, "What is a college education?" Do the young men realize in any degree what the opportunities offered by the college course mean to them? Do they imagine that by some peculiar means they will become possessed of facts which will guarantee a successful future to them? As one studies these problems there is no doubt but that the young man has a great faith in the colleges and the professors to guide him in order that the foundation of life may be the most substantial in its nature. The young man may have the belief that the accumulation of facts which are stored as the results of his efforts in the classroom is the most essential. Perhaps a few will grasp the fact that the environment of the college will have for them a value equal to the training in the classroom. The value of the environment will be in proportion as the tone or spirit of the institution is of value. The value of this spirit or soul of the college to the young man is receiving greater recognition as its value is appreciated. This important feature of college life is very difficult to describe or define, yet it exists and has a wonderful influence. Fitch¹⁸ has recognized this influence as part of

¹⁸ *Educational aims and methods*, p 95-96.

education, for he tells us, "The character of pupils is unconsciously molded by the sort of moral atmosphere which is breathed in a school. We inspectors and educational critics are sometimes laughed at for talking of the tone of a school. This, we are told, is an intangible entity, incapable of measurement, not to be set down in schedules or reports. That is very true, but the tone of a school is something very real, nevertheless. It means, as I understand it, the prevailing spirit of that place, its cheerfulness, the mutual helpfulness of its members, its love of work, its orderly freedom, its well-directed ambition, its scorn of meanness or subterfuge; the public opinion of an organized body of fellow workers, all in their several degrees helping to fulfill the highest purposes of a school. The scholar who enters a community favorably conditioned in these respects, and who inhales its atmosphere, is in a training school of virtue and of self-knowledge, whatever may happen to be the subject taught or professed in it. Let us ask ourselves not only, What do these pupils learn, how do they succeed in examination, what triumphs do they win? but also What sort of influences are those which, tho they work unconsciously, make the moral environment of the learner, and will determine his future growth?"

The soul of the institution is an inheritance of the past. Its foundation is laid and it is developed by the sacrifice and devotion of the men who have been associated with the college during its past history. The soul may be such that the student is inspired by living in the environment of the place and when he goes into the world it is with the determination to add honor, in the future, to his Alma Mater.

The world is blessed to a great extent by the young men who have been inspired by living in a soul-building atmosphere, and this value can be realized only to a limited extent. If the value of this soul or spirit is appreciated by those who are interested in the welfare of the institution, then it is watched and it receives the utmost care, that the influences which may be exerted shall in no way degrade. An institution cannot have two ideals. If it selects that which is for the good of mankind it must reject as quickly as possible that

which tends toward the degeneration. The nature of the ideal is shown by the work of the college or university, the character and productiveness of its president and faculty, and the effectiveness of its training upon the young man and woman committed to its care.

The atmosphere present in those institutions desiring to meet the demands made upon them is favorable to scholarship and the building of that which is highest in every respect. This feature has had consideration from President Low in the following words: ¹⁴

"The atmosphere of both college and university is that of freedom. During all history, students have been among the foremost to sacrifice themselves in the cause of liberty. The colleges and universities emphasize also with a single voice the importance of truth. They lead men to search for truth. They teach men fearlessly to follow truth wherever it may lead. They teach that no time and no country has been without its truth. They teach men to be modest in the presence of new discoveries, as they recall the vast obligation of our own age to the generations that are gone. They teach men to be sanguine in the anticipation of still newer discoveries, by acquainting them with the continuity of progress thruout recorded history. The university, by its libraries and by its men, is at once the great conservator of human knowledge, and chief instrument in extending its limits."

The environment of the college, therefore, must be free for growth, and the growth that is upward for the best and truest that can be found. If it does not give this freedom it is not true to its trust as the place where the nation must expect to have its youth trained and equipped for life, in order that from the best that can be produced there may come the leaders in what is best in the building of the nation's future. The places of learning, in order to be the places where there is security and peace for developing the highest in human knowledge, must be guarded and protected from every danger that may tend to prevent its freedom, and this freedom must be guarded in many ways. It is surprising that we do not realize

¹⁴ EDUCATIONAL REVIEW, 5, p. 16.

the great damage that may be caused by inattention to little things which at first appear only to have the slightest influence. We all know what the result will be when a match is applied to any combustible matter in a building, and that the small fire is put out as quickly as possible, yet these agencies of destruction in our educational system we allow to grow, and we trust to Providence that ultimately the problem will right itself. If the same principle was applied to our cities we would pay no attention to a fire department, but simply allow the fires to continue their destructive work as fortune would decide. This we all know would be extremely foolish, yet is it not equally so in the domain of education? We realize that to tolerate those ideas which would leave our cities unprotected by fire would be the survival of the unfit, and we may therefore consider some of the influences which favor the survival of the unfit in higher education and thus hinder the proper work of the colleges and universities.

The most important agencies in the effective work of our higher educational institutions are the trustees, or regents, the president, the professors, and the students. The community in which the institution is situated furnishes the majority of the youth to be trained, and also from its citizens it supplies the governing board for the control of the work in education. The public therefore controls the material for the college training in the most important period of life, that of adolescence. The public may also delegate the ideal which may dominate the institution and therefore control in an indirect manner the atmosphere in which the student will be developed.

The trustees are selected for the positions practically by two methods. The state institutions called state universities and state colleges have their trustees selected either by being elected by ballot by the people or are nominated by the Governor and confirmed by the state legislature. In the older institutions and those not controlled and supported by the state, the board of trustees is composed of representatives of the public and the alumni of the college, as an example, Yale University, which has eighteen members, of whom six represent the alumni. The president represents the college-

and the state is represented by the Governor, the remainder represent the public and hold office for life. These colleges and universities in their selection of trustees are characterized by long tenure of office and representation of the alumni. This insures a continuation of a definite position and an interest on the part of the student body, both of which are most favorable to the growth of the college ideal. The state institutions, on the other hand, are controlled by boards which are usually elected for short terms of office, altho in California the members hold office for sixteen years, this being an exception to the usual practice. This method of selection of trustees for short terms has been disastrous to the institutions in many cases. The influence many times has been such that the institution has never developed an atmosphere or soul of its own. In other cases the efforts to build up an atmosphere have been completely destroyed by the inrush of the low educational idea. This method of representation may secure excellent material, yet it is at the same time subjected to all that is evil in politics and unworthy representatives are selected to represent the people. It is costly to have such mistakes made, yet until we learn that in education we must have only that which is best, the people will continue to pay for their experience.

The ideal which results from the body of men representing the community governs the selection of the president of the institution. It is a very worthy fact that in every case "a good man" is desired, but there is a multitude of ideas of what is a definition of good. It may vary from the low ideal, that with the capacity of being controlled by selfish purposes, to the highest development of manhood. The effective ideal of a college or university president is largely an expression of the moral standard of the members of the board. One misleading tendency is often manifested, and that is the endeavor to represent the lower ideal as the higher. The highest ideal will be proclaimed and the person who is easily controlled by a certain faction is finally selected. This unfortunate lack of foresight has developed an unsatisfactory result, for President Butler¹⁵ states in speaking of the vacant presidencies of col-

¹⁵ EDUCATIONAL REVIEW, 16, p 405

leges: "The simple truth is that for some reason or other the very few men—half a dozen, perhaps, in the whole country—who by common consent are best fitted by natural endowments, by training, and by experience for these high educational posts, are unwilling to accept them, even when extraordinarily large salaries are offered. They are already engaged in congenial and influential work, and have little to gain and much to lose by the transfer to the average college presidency. Some of the unpublished, and for the most part unknown, negotiations during the past decade over these positions are full of instruction. Since the first-class men hold back, these influential educational offices are too often filled with second-rate or third-rate men; or worse, conflicting tendencies in the governing boards hit upon that most awful and depressing expedient, a 'compromise' candidate. As a result of these facts many of the colleges and universities in the United States are to-day simply drifting; they have no unrealized ideals, except financial ones, and no educational policy, except to stand still and to beg."

The president is many times selected and is often noted for his ability to raise funds for the endowment of the college. He spends most of his time meeting the demands from those without the college walls. The time which is spent in attending associations and other meetings leaves very little for him to become thoroly acquainted with the work of the college. This does not give a result favorable to the growth of the soul of the institution, nor is it in accordance with the principles of business to have the head of the institution away for most of the time. In an ordinary business house the place of the head is at the office where the business is transacted. With a business firm the best that can be obtained is used to foster the growth of the business, and why should it not be so with colleges? Why should the president be regarded as the "advertising function" of the institution. Is it not true that the best men are driven from the greatest field of work in the nation by the unfortunate conditions prevailing, or if they remain in this capacity it is comparatively only a short time that is allotted to them? It is said that the heads of our in-

stitutions cannot be great scholars for they do not have the time to become such, their work is of an executive nature. As President Thwing tells us, "His work is to do things and not to tell about them. But nevertheless he is to be in complete sympathy with scholarship, and he is ever to have the largest appreciation of scholarship. If the college teacher is set to teach, he is also given the duty of extending the boundaries of human knowledge. In this extension he should find no heart more eager, no mind more appreciative, no purse more liberal, than that of the college president."

The position of the president is a difficult one. Upon him more than upon any other depends the growth of the college ideal. The addition of fine buildings may please the eye, but the soul of the institution may shrivel in proportion as buildings are erected. The growth must be upward, whether buildings and endowments come or not. The temptation to meet all conditions and to be on many sides at the same time has resulted in a disastrous manner for many who have made the attempt. It is stated that ¹⁶ "The remark is common that all presidents lie. The falseness of the remark does not at all lessen the truth of the fact that all college presidents are tempted to lie, and are tempted possibly more strongly than most men. The reputation for deception which has come to cling about the office arises from a desire of the president to satisfy personal or official interests which are in mutual opposition. Therefore he is tempted to mold the pliable clay of truth to suit an auditor or petitioner. Of course the method is suicidal, and it is, I am sure, easy for the reader to think of more than one college president whose reputation for untruthfulness has cost him his office."

This condition is an injustice to the head of any institution. The condition should be such that the president has the privilege of selecting the right because it is right and not because it is favored by the majority or someone who has influence. If a course is not selected because it is right, then the college must pay the penalty and those connected with the institution are responsible for the results. In most cases, however, the self-

¹⁶ Thwing, *College administration*, p. 63.

sacrificing men who bear the burdens of the institution pay the penalty while those who are directly responsible shift the burden to other shoulders.

The president is in our country largely responsible for the faculty. In some cases there is no doubt that the president undertaking the position with a faculty which has developed along certain lines, wishes many times it was otherwise. The faculty of the institution is naturally a very important part of the institution. While buildings, scientific apparatus, and libraries are considered of such great importance in our brick-and-mortar stage of education, yet the character of the men composing the faculty has its influence upon the college.

For some reason we have not given the importance to the manhood and character of our teachers in colleges which should be given to this valuable characteristic.

It is told us that "The faculty was the glory of old Cornell. It was the strength of the men, whom, with marvelous insight, President White called about him in 1868 that made Cornell." In the present demand for specialists this feature of success in college work is too often neglected. If the faculty is selected on the higher standard it is an excellent foundation for the survival of the fit. Let this condition exist, then let a lower ideal be presented and if it is rejected it is well. Many times a crisis comes in the history of the college—a crisis between right and wrong. The question will be presented to the faculty individually whether they will do right because it is right. Sometimes we see with regret the best men sacrificed because they will not support certain measures and individuals which they know are wrong. They will be misrepresented, untrue statements will be made regarding them, and they will be perhaps forced to leave the institution. This creates a faction, a few will stand for the right, and many will remain neutral from fear of the possibility of losing their positions. Some no doubt are sacrificed by unfortunate circumstances, they dare not do what is right for the future of the college. The loss of the few men who dare to do right does not solve the problem for the college or the community. The remainder left behind may gather themselves under the lower ideal in

hopes of recovering the lost opportunity for building the ideal for higher work. But it is not given to them to do this. The birthright has been sold. Those who have not courage themselves cannot teach the young to be brave and to meet the demands of modern life. The teacher should be the source of power and should meet these responsibilities in his task:¹⁷ "The task of humanizing and socializing the national life by importing into it the red blood, the warm touch, the social concern of a loving sentiment. It makes a tremendous difference what a man thinks about as he works, what he believes, what he feels. It makes a tremendous difference whether he is a free man, expressing his own full, rich, joyous life in his work, or whether he is a hireling with no satisfied emotion to express."

"The lower cannot call the higher." This is a question of great importance, especially during the college career. The period of adolescence is the one opportunity for laying the foundations for the highest ideals. Those ideals cannot be taught or encouraged by men who have committed moral suicide.

"Once to every man and nation comes the moment to decide,
In the strife of truth with falsehood, for the good or evil side,
Some great cause, God's new Messiah, offering each the bloom or blight,
Parts the goats upon the left hand, and the sheep upon the right,
And the choice goes by forever 'twixt that darkness and that light."

The college with a soul has little sympathy with those persons possessing a low ideal in education. It appreciates the highest because it knows that it has something of great value if it has a faculty of effective characters. The older members of its faculty are not cast aside when they reach an age when the physical man is on the decline. These experienced men with the many years to their credit are some of the grandest blessings that a college can possess. They are an heritage from the past, and their ripe experience has a value which cannot be estimated. It makes a wonderful difference to a college whether it has a faculty of live souls or one of dead souls.

¹⁷ Henderson, *Education and the larger life*, p. 84.

The student body of the college is a charge which receives a great amount of attention. These young people will ultimately become citizens of our country. The nature of their citizenship, whether good or bad, will depend largely on the soul or the environment of the college or university. The college student has much to learn from the college environment; he must learn that a lie is a lie whether it is told by the president, a professor, or the student. He has the right to expect from the college the guarantee that the professors are gentlemen and he should receive treatment as a gentleman. The five per cent. of questionable characters among students should not control the soul of the institution. The ninety-five per cent. of the student body have rights which should be protected. Under the usual circumstances the five per cent. element, having little responsibility, controls the student ideal in many ways, by reason of the laws which are in the domain of the psychology of the crowd, the lower element being always the controlling one.

The responsibility of the faculty does not end in the classroom. There should great attention be given to the condition of the college environment as it affects student life. The faculty's efforts are in many cases adjustable along the lines of least resistance when it should be otherwise. This responsibility on the part of the college authorities, in behalf of their students, is appreciated by President Hadley in the following statement:¹⁸ "These collegiate authorities who deem their responsibility to be ended when they have provided books and apparatus, lectures and classes, take a fatally incomplete view of their duties. Upon them rests the further responsibility to do what they can to preserve the tradition and sentiments in a place of which they themselves are the permanent population, amid shifting generations of students. Upon them rests the responsibility for the preservation of standards of public order in the community about them; for the maintenance, as far as lies in their power, of athletic purity and fairness in the dealings of each university with its rivals; for the fullest development of those religious sentiments of reverence and self-devotion without

¹⁸ *The education of the American citizen*, p. 170.

which churches are powerless, and creeds are but empty forms."

III—*The problem and its future*

In presenting certain conditions occurring in secondary and higher education which indicate that the conditions are more favorable for the unfit than for those who should be in control because of their fitness, it has been my object to call attention in no uncertain language to these tendencies which are of no small danger to the future growth of the nation. When a number of men are grouped together, whether it be as a board of trustees or other public representatives, we expect that the greatest thoughts and therefore the highest actions can only be produced by concentrated effort, trusting that in numbers there is an increase in thinking capacity and effective action and that the larger the group the greater their power. But it must be kept in view that as soon as we group together a number of individuals for the consideration of any problem, the result will in all probability be the lowest that any of the group is capable of and not the highest. As it is said,¹⁹ "This very fact, that crowds possesses in common ordinary qualities, explains why they can never accomplish acts demanding a high degree of intelligence. The decisions affecting matters of general interest come to us by an assembly of men of distinction, but specialists in different walks of life are not sensibly superior to the decisions that would be adopted by a gathering of imbeciles. The truth is, they can only bring to bear in common on the work in hand those mediocre qualities which are the birthright of every average individual. In crowds it is stupidity and not mother-wit that is accumulated."

It is the action of the small group of men who are ever ready to make a sacrifice for the welfare of the good and true which is really the cause of advancement in knowledge. The vast majority which is constantly held before us as the controlling element is largely the tool of the praisemonger and not the supporter of what is best for the country. It has been stated that we advance by the sacrifice of the best and

¹⁹ Le Bon, *The crowd*, p. 8.

leave the unfit to continue the great work of building the nation in peace and war. The majority is a wonderful being in the imagination of the person who has an object to accomplish and who wishes it to be represented by himself. What is the majority? If it is a crowd simply, it is not controlled by the highest ideals by any means; as Goethe tells us, "There is nothing more odious than the majority; it consists of a few powerful men to lead the way; of accommodating rascals and submissive weaklings; and of a mass of men who trot after them, without in the least knowing their own mind."

The first lesson that the individual must learn is the nature of the laws which control the majority and the dangers which may result where the so-called majority seeks control. The appreciation of the man who dares to do right because it is right is the second great lesson to be kept in view. The man who has the courage to make a sacrifice for education should receive every support from the citizens of the community. The problem is not solved when a good man is sacrificed because he is the fittest. Simply the statement on the part of those who should take an active part in his defence "every man for himself and the Devil take the hindmost," does not satisfy nature's penalty. It is simply an expression which indicates that the moral condition of the community is low and it is not an excuse for inactivity in public affairs. Is it not to this condition that Lowell calls attention?

"Hast thou chosen, O my people, on whose party thou shalt stand,
Ere the Doom from its worn sandals shakes the dust against our land?
Though the cause of Evil prosper, yet 'tis Truth alone is strong,
And, albeit she wanders outcast now, I see around her throng
Troops of beautiful, tall angels, to enshield her from all wrong.

"Then to side with Truth is noble when we share her wretched crust,
Ere her cause bring fame and profit, and 'tis prosperous to be just;
Then it is the brave man chooses, while the coward stands aside,
Doubting in his abject spirit, till his Lord is crucified,
And the multitude make virtue of the faith they had denied."

As these problems are presented the pessimistic view is not to be taken, for the diseased pessimism is too often the opportunity for the medical quack. Optimism, on the contrary, may be blind and in this condition it is the special field for

the fakir or bunco steerer. There is a condition which is ever mindful of present needs and has a hopeful future. There is in this condition a constant realization that responsibility is everywhere needed in order that upward growth may continue.

We are reminded of Jonathan Edwards and his great work for our country. His influence on education is something for which to be thankful. It is seldom that the descendants of one man can exert as great influence as those of Edwards have upon Yale University. Timothy Dwight, a grandson, President of Yale from 1795-1817; President Woolsey, a great-grandson, 1846-1871; President Dwight, a great-great-grandson, 1886-1899; a total of sixty-three years of service to Yale within a little over a century. Is it not wonderful? There is another picture, that of one who fell by the wayside—we know him as Aaron Burr—the grandson of Edwards, and we might question, Why was this possible? Burr in many of his efforts showed great ability, yet there is to the student a flaw somewhere within the life. It is stated that in the early life of Burr Judge Reeve wrote, "My wife's brother Aaron is a youth of extraordinary powers of mind. He will accomplish great things if he lives and if he shall not prove that he has the fatal defect of some of his lamented father's maternal ancestors of being unable to see wrong in anything which he desires to do. This is a source of much anxiety to his sister, whose affection for him is intense, and indeed, his for her seems to be equally so. It is impossible to avoid loving him. May God grant that our foreboding prove false, for he is capable of doing great and good things."

This inability to see wrong in anything that we may desire to do is one of the reasons that we have with us in many cases the survival of the unfit in education.

In our country our people have high ideals, and unfortunately the responsibility ceases here and too little effort is made to make these ideals effective. We are constantly looking to the future with optimistic foresight, while the inattention of the present leaves us a pessimistic hindsight.

We are told by one²⁰ who looks into the future, that in

²⁰ Wells, *Anticipations*, p. 333.

speaking of the citizen of the future republic, "Birth gives only the beginning, the raw material, of a civilized man. The perfect civilized man is not only strong and sound of body, but a very elaborate fabric of mind. He is a fabric of moral suggestions that become mental habits, a magazine of more or less systematized ideas, a scheme of knowledge and training and an æsthetic culture. He is the child not only of parents but of a home and an education. He has to be carefully guarded from physical and moral contagions. A reasonable probability of insuring home and education and protection, without any parasitic dependence on people outside of the kin of the child, will be a necessary condition to a moral birth under such general principles as we have supposed."

To develop from the present conditions to those of the future dreamed of by the optimist, is a task for human effort. Can education along the lines of least resistance reach these conditions? Will it not lead to a life similar in nature and finally reach a hereafter along the same lines of least resistance? It may seem to us that many people can do this and have much that fortune refuses to the more worthy. The idler who does nothing to-day which can be postponed to the future exists. He is happy, to all appearances, as he kills time amid the frivolities of life. The thief appears to have made a discovery when responsibility becomes a myth to him and he takes as his own the possessions of others. These are living along the lines of least resistance, but we are not proud of the results. The great achievements are not along the lines of least resistance but they come step by step, honestly and carefully taken. Can the goal be reached by the self-satisfaction which is the result of the efforts of the praisemonger, who lauds from the housetop what is to be accomplished, and thru columns of the daily press, telling with exaggerated statements what is to be done, yet hedging and never speaking a word of what has been accomplished? Can the gulf between the present and the future be bridged by building great buildings, supplying great laboratories, and elaborate libraries? Will these evidences of wealth, exhibited to the wondering public, telling only of the great cost but nothing said of what has been ac-

complished with them to add to the sum of human knowledge, bring about the desired transformation?

Can the natural course of evolution solve the problem? We have satisfied by this means many questions which have given more or less trouble. Anything which relieves personal responsibility is received with very little questioning. One form of evolution is constantly before us in our social world; responsibility has little to do with the process. It is "Evolution by Atrophy," and its tendency is towards degenerative and eliminatory selection of superior elements, the casting off of that which is not used, or encouraged, or favored. These means will never reach the higher civilization. The education along the lines of least resistance produces nothing. The praisemonger accomplishes nothing and the evolution by atrophy degenerates into nothing of value. Growth and constant growth is needed for the nation's welfare, and its destiny depends, as is stated,²¹ "upon the quality of the elements of which it is composed and by which it is directed. If a nation is rich in energetic and intelligent qualities, the greatest of disasters can only have a transitory and limited influence. When the contrary is the case, the same circumstances may produce an arrest in development or a complete decline and fall."

To prevent atrophy the best must be used. The best must be nourished and the best given all possible resources.

The responsibility which is part of the citizen's duty is (1) that the homes of the children be true homes, (2) that the secondary education shall be so arranged that the teaching of stupidity will not result, (3) that the higher institutions of learning shall have the highest atmospheres or souls for the highest ideals and that those institutions possessed of evil spirits should not be regarded as the places for the education of the youth of the nation, (4) that the teachers shall be men of effective characters; specialists in many cases, but specialists in a true sense of the word. President Butler calls our attention to this need, "one other danger, common to all universities, whether American or German, lies in the excessive

²¹ *Evolution by atrophy*, Demoor, p. 290.

specialization which is so often warmly recommended to university students. Its inevitable result is loss of ability to see things in their proper proportions, as well as loss of sympathy with learning as a whole. Perhaps the division of labor cannot be carried too far for the value of the product, but certainly it can be carried too far for the good of the laborer. Signs are not wanting that this narrowing of view and sympathy is already taking place; but the university has in its faculty of philosophy the means to correct it if it will. What science and practical life alike need is not the narrow men, but broad men sharpened to a point. To train such is the highest function of the American university; and by its success in producing them must efficiency be finally tested," (5) that the teachers in the higher institutions shall be encouraged to enter the field of research in order that they may add something, in their special fields, to the sum of human knowledge.

Interest in these questions will insure the future for making of citizens who will meet the responsibilities of life. They will be born men and women. They will live as men and women and die honored as such. The occupations of life will not require every effort of the low ideal based on the money which can be grasped during the years of existence, and success will not be \$UCCE\$\$.

It is more easy for the public to see results which are produced in a rush. An exhibition of what has been accomplished in education appeals very readily to the public, and notoriety results. The slow and sure building processes in education do not appeal to the masses. The rush is too often mistaken for results accomplished. It is the one who proclaims that he is to do something in the future who is too often regarded as the one who accomplishes what is of benefit, while the silent worker is ignored.

Confidence on part of the public that the problems of education will ultimately in the future prove satisfactory gives no guarantee that it will be so, it simply relieves present responsibility and transfers it to the future generations. The responsibility for an effective career in which it is realized that "Character is man's destiny" is necessary for parents and the

youth of the land. If a young man or woman can be made to appreciate that they have in their possession the results of the efforts of the best years of their parents and that the realization of this responsibility is shown in the manner in which they make effective the blessings which come to them in the home, school, college, and after-life it will be a sure foundation for the highest effective citizenship.

In an editorial in a prominent paper, in speaking of certain tendencies on the part of the public, the following is of interest:

"The whole situation, we say, is a sad one. It is sad because it reveals an utter failure to discriminate between the pretentious things and the real things in human life. It is sad because the results will be more and more destructive of quality, of manner, of appreciation of the sound and the beautiful, which only long years of hard experience can reproduce. When we have learned to desire sound goods, careful workmanship, judicious decisions, considerate treatment of patrons,—in short, wisdom, rather than humbug, pretense, 'plunging,' and 'hustling,'—we shall again have in the employ of corporations, in the newspaper offices, and in the universities, men of age and experience."

There is much to be learned on these great questions which are related to effective education. One of the most important is that a teacher who cannot devise a proper education for his own children and whose children are noted for their ineffective characters is not equipped to instruct the children of others, regardless how many rash statements may be made to the contrary. More is needed of effective work and less of the razzle-dazzle in science and education.

The necessity for attention to true education comes to us from past history as Le Bon states:²² "The mental constitution of beings cannot escape these physiological laws. The brain cell that is not utilized ceases to fulfill its functions, and mental dispositions it took centuries to form may be promptly lost. Courage, energy, the spirit of enterprise, and various qualities of character that were a long time in being acquired

²² *The psychology of the peoples*, p. 213.

disappear quickly enough when they cease to be exercised. This fact explains how it is that a people always requires a very long time to raise itself to a high level of culture, and in some cases a very short time to descend into the abyss of decadence.

“When the causes are examined that led to the successive ruin of the various peoples with which history is concerned, whether the people in question be the Persians, the Romans, or any other nation, the fundamental factor in their fall is always found to be a change in their mental constitution resulting from the deterioration of their character. I cannot call to mind a single people that has disappeared in consequence of the deterioration of its intelligence.”

So with the responsibility of citizenship there will come a realization that the safety of the nation will depend upon the guards which are about our higher institutions of learning, insuring the greatest possible freedom for that which is highest in truth and thought in order that the environment may be a soul-building one, giving to every student as a heritage for the future an effective character, with his knowledge whether it be classical or scientific, so that life may be effective and practical in every way. The barbarian in education will not be tolerated as a luxury, but will be regarded as was the barbarian of old who endeavored to destroy the old civilization by his inrush of low ideals without consideration for anything besides his selfish motives for accomplishing selfish purposes, to the destruction of the nation and the formation of conditions for the survival of the unfit.

J. B. WEEMS

V

ON TEACHING LATIN ¹

In the presence of those who have been constantly engaged for years in fitting students for college, it requires some hardihood in one whose practical experience in preparatory teaching dates back nearly a generation to discourse at all dogmatically on methods of instruction in preparatory schools. What the material is, what the conditions are, and how with the given material and conditions the best results can be attained, must surely be best known to those whose daily work is a study of these very problems.

Yet altho the college examiner and instructor may not presume to lay down the law as to *methods* in preparatory work, he does have occasion to observe the results actually reached; and as it is his function to continue and complete the work begun in the preparatory school, he is in the best position to estimate the value of the course as a whole, and to state, at least in a general way, wherein it can be made more fruitful. I know that the attitude of the practical teacher toward people who have remarks to make, "in a general way," on educational matters, is much like that of the burnt child toward the fire, and not unnaturally. Education, as the formative department of human activity, especially engages the freakish speculations of closet philosophers, who would take the child at birth,—yes, and long before birth,—and put him and all connected with him thru a series of fads and whimseys that would surely kill both body and soul. But there are theories and theories; educational cranks and practical teachers. Views and convictions that have been reached after long experience, whether they have crystallized into a theory or not, should have some value, and ought

¹ This paper, substantially as here given, was read at a meeting of the High School Teachers Association at Biddeford, Me.

not to be classed with the abstract speculations of men who, very likely, never taught a day in their lives. This reflection, that mere length of service in the classroom makes any man's opinion worth something, together with the fact that many of you are my former pupils, reassures me in this attempt to comply with the request of this body of teachers that I should talk to you to-night on the teaching of Latin.

A thoro treatment of our subject, about which many volumes have been written, especially in Germany, would take the pupil at the very beginning of his Latin course and conduct him thru all the details of the successive stages until entering college. This is the method employed by Dettweiler in his exhaustive work, published in 1895, much of which is of great interest and value to us even in our American conditions. But in view of the breadth of the subject to be covered in the brief time at our disposal, I shall ask you to consider merely some leading features of Latin instruction. A consideration of these topics will suggest at least what it is desirable to secure, even tho the methods of securing it be not in all cases satisfactorily ascertained.

What is the primary aim of Latin study? It is the power to read Latin. Simple and obvious as this aim appears, it has been strangely overlooked in Latin teaching. Owing, doubtless, to the fact that the benefits of Latin study are many and various, even teachers of Latin who have taught many years have differed widely in their answer to the question, "What is the chief object in studying Latin?" Perhaps the most common answer has been "mental discipline"; and elaborate arguments have been framed to show that no other study, except that of Greek, can compare with Latin in this regard. Others have given chief weight to the advantage that Latin study offers in taking us to the source of half of our English vocabulary, and in making clear the forms, the history and much of the material of modern literature. Again, the study of Latin is chiefly valued by some because it greatly assists in the acquisition of the modern languages, or because, by the training it affords in observation, analysis and classification, it prepares

the mind admirably for the study of physical science. Possibly some have taken no higher view than that, inasmuch as Latin is a traditional subject that must be reckoned with in order to get into college, it is to be studied without asking any questions, simply because the colleges require it and the schools provide funds for such instruction.

The advantages mentioned, and other cognate ones that might be named, are great and undeniable; but no one of them should be considered the prime object of the study. They are incidental and secondary; and to elevate any one of them to the highest place dislocates the system of work and produces a defective result. We cannot too clearly conceive our fundamental purpose, the real title of Latin to its place in education. We are to teach Latin because the language and literature, in and for themselves, are worth reading and worth knowing. Only here can we find a really solid foundation. By seeking first this mastery we shall find all these things added unto us; and in no other way shall we compass them all.

Fortunately for the future of education, this is coming to be the prevailing view in this country. It has been declared again and again during the last fifteen years by the best Latinists and the highest educational authorities. It is the foundation principle of the classical programs of the Committee of Ten and of the preparatory courses recommended by the New England College Commission and the American Philological Association.

This cardinal matter settled, we may consider the means to this chief end. Of these none claims earlier or later attention from teacher and pupil than the careful pronunciation and expressive reading of the language itself. Happily we may now be said to have passed thru the vexatious transition from the English to the Roman method of pronouncing Latin. The latter is practically universal in the United States, and the great majority of undergraduates have never known any other. Many teachers, however, were brought up on the English method; and altho they have adopted the other, they find themselves lapsing rather often from the strict and full rendering

of the long vowels, even if they do not occasionally utter the English vowel sounds. As all who have tried it can testify, a resolute effort is required in order to make the change complete. But systematic practice in reading aloud, with the strictest care to give each long vowel its full time, will gain the desired end. And it is extremely important that this end should be gained speedily, for the slightest carelessness on the teacher's part is bound to be reproduced and exaggerated by the student; while the careless ways of pronouncing that students are prone to on their account will pass unnoticed and become inveterate.

Milton remarks that "to smatter Latin with an English tongue is as ill a hearing as law French." But even if we give the so-called Continental vowel sounds, as Milton did, we have gone barely half-way. The characteristic feature of the Roman method is, of course, its observance of quantity. But the quantitative pronunciation of the vowels is especially difficult for English-speaking people. Whatever the cause may be, we have a strong tendency to shorten the open vowels, using a very close *o* in words like *stone*, *bone*, *coat*, *throat*, and even *boat*, so too a flat *a* in words like *path*, *mass*, *cast*, etc. Good utterance must shun all this; and the boy or girl who is being properly drilled in Latin is getting valuable vocal practice with words like *Rōmānōrum*, *amābāminī*, *cīvītātēs*.

What has been aptly termed "the convulsion of the accent" in English is also in direct conflict with the principle that a long vowel, wherever found, should have its full time for utterance. Such words as *judicature*, *inevitably*, *peremptorily*, also *milit'ry* and *liter'ry* in the mouth of an Englishman, show how we slur and swallow syllables, sacrificing everything to the sledgehammer stress of the accent. Hence when the pupil comes upon the Latin original of the English *inevitable*, he is pretty sure to say *inevitabilis*, with every vowel short, instead of *inēvītābilis* (if acc. plur.) with four long vowels out of six. So, too, the pupil quite naturally says *mensis* for *mēnsis*, in his first declension paradigm. At this earliest stage hardly too much care can be taken that, in the memorizing of the declensions and conjugations, each form shall be correctly pronounced, and in particular

that each long vowel shall be given its due time, whether it occurs in an accented syllable or not. Now that most preparatory text-books, including some editions of Vergil and Ovid, have the long vowels so marked in every Latin word, all that is needed is vigilance in the teacher to keep himself and his pupils to the standard of full and free vowel and consonant enunciation.

The practice necessary to acquire and maintain correct pronunciation will show the great value of oral work as a means of gaining an insight into the language itself. Nothing else gives such a hold upon a foreign tongue as the frequent hearing of it. The Romans, moreover, beyond modern men, shaped their language and their literary productions for the ear rather than the eye. Almost everything that was written was spoken or recited by the writer. Latin is therefore essentially rhetorical, oral. "The grandeur that was Rome" still reverberates in these full-throated sounds. I am persuaded that there are few boys and girls who cannot be made to feel this oral beauty. As long as the English pronunciation prevailed,—which was confessedly a makeshift, a barbarous jargon,—there was every inducement not to read the text aloud; and thus was fostered the tendency to make instruction dry and too largely linguistic. But with the adoption of the restored pronunciation Latin study has received a new impetus. The improved methods of teaching, which make oral work prominent, have kept pace with the advance of the restored pronunciation, and in many instances have been conceived and applied by its warmest advocates.

From the nature of the case we must deal with Latin objectively. It is never "in the air," as German is in Germany or French in France. If we could bring all five senses to bear upon it, we should never master too thoroly its many difficulties. But both sight and hearing we can apply; and I believe oral reading will be more and more resorted to for the new life that it imparts. The more oral work the better for both teacher and pupil. From the beginning the pupil should be taught to read the lesson aloud to himself in his room repeatedly, and

also before the class, always with strict attention to pronunciation, to quantity and accent. The teacher should read aloud to the class the Latin text by the page,—often the review lesson, oftener the advance lesson,—taking pains not only to pronounce with accuracy, but to express the thought as fully as possible in the Latin words. When the instructor thus feels the Latin as Latin, and renders the shades of emphasis as the word order demands, the pupil will soon find himself able to see thru a simple sentence without translating it. The word order will no longer seem mysterious and arbitrary, but will have increasing significance. He will learn to watch for the emphasis required. His own pronunciation will cease to be mechanical and unmeaning. His translation will become more intelligent, and his interest will deepen with his deepening insight.

In these observations I have had in mind the prose authors. In dealing with verse, let the teacher make himself master of the art of metrical reading; and after the class has studied some hundred or more lines of Ovid or Vergil, let him read to the class long passages, both familiar and unfamiliar, with as much feeling and expression as he could put into a page of Milton. Then let him gradually bring his pupils up to a similar readiness. Teachers who have not tried it will be surprised to note how soon the better scholars can be brought to move with freedom and expression thru a page of verse. Obviously, poetry can be properly appreciated in no other way; nor, for that matter, can prose.

Much will be gained toward this end if, from the start, translation at hearing from Latin into English and from English into Latin is faithfully practiced. If this can be supplemented by the declamation of interesting selections of Latin prose or verse, so much the better. Words and constructions once thoroly memorized are a possession forever. It is just this quick memory of the very youthful pupil that ought to be much more generally utilized in learning the elements of Latin in the last year or two of the grammar school.

Nine Latin students out of ten turn out to be what the first year makes of them. Too often they turn out helpless and

hopeless because thru their own or their teacher's fault the foundation work has never been thoroly done. Nor is it a simple matter to do that work thoroly. The most experienced teacher, and not the young apprentice, ought to have charge of the beginners. His knowledge of the language cannot be too complete or too ready; nor can he be too richly endowed with the teaching faculty. Yet with a paragon of a teacher and with every possible aid, the young beginner cannot escape the necessity of memorizing forms, syntax and vocabulary. These matters have got to be learned, and thoroly learned, and no other way of acquiring them will ever be found than that of hard study. The mere rote learning of paradigms is sometimes objected to as being mechanical and fruitless; but if the meaning of each inflectional ending is fully fixed, as it should be, by repeated exercises in turning English into Latin and Latin into English, it is hard to see anything but a decided advantage in possessing so perfect a knowledge of the forms,—call it rote knowledge if you will,—that on hearing or seeing any one form the mind instantly and automatically commands all the other forms of the word. It is precisely this ready, unconscious, or subconscious, apprehension of the forms and relations of words that we are aiming to secure, in order that a Latin sentence, in course of time, may come to be absorbed by the mind like an English sentence, automatically, as a whole, as a thought, an idea, and not as a group of words whose separate meanings and relations are consciously sought out and combined. It is the lack of this instantaneous apprehension of the forms, rather than the lack of vocabulary, that causes the difficulty of reading Latin. Brought up speaking a language that has discarded nearly all its inflections, the pupil is confronted with a language in which inflections abound. He has no conception of language apart from fixed forms and a practically fixed word order; but, roughly speaking, almost any order is possible in Latin, and a world of meaning hangs on the ever varying last syllable, or even the last letter of each inflected word. How prone the English-speaking boy is to overlook this vital point is seen in almost every exercise in Latin com-

position. If he gets the word he wants, he is apt to leave it in the form most familiar to him,—the nominative, if it is a noun, or the first pers. sing. act. indic. pres., if it is a verb. The feeling for the ending is created and fostered only by diligent cultivation; but by some means this feeling must be made to take possession of the boy. It must become with him a kind of conscience, so that he will feel a moral recoil from putting a nominative for an ablative, or an infinitive for a subjunctive.

Naturally the verb forms are the most important; yet in the majority of cases these are not properly learned. In an elementary paper, which I recently set, the principal parts of five verbs, *queruntur*, *verentur*, *malit*, *vivere*, and *acciderit*, were called for, also the inflection of *malit* in the fut. indicative and in the imperf. subjunctive. Not one candidate got the forms exactly right. I know of no other way to overcome this difficulty than to insist from the beginning and thru the first two years that the pupil shall not pass by a verb in his reading without being able to give the principal parts and to vary it freely thru all its changes of voice, mood, tense, number and person.

The order of words too often continues a mystery to the pupil and a matter of indifference to the instructor. The extreme freedom of word order permitted by the synthetic character of the language is skillfully utilized by the best writers, so that to the initiated eye the printed page of Cicero, Cæsar or Livy, of Vergil or Horace, exhibits for all time the nicety of thought and expression that a page of Shakspeare or Webster possesses only when rendered orally by an accomplished elocutionist. The teacher who has trained himself to see and feel these tokens of elegance and force will appreciate his author as never before, and will welcome the opportunity to train his class to the same appreciation. Nor need such training be deferred until the authors are taken up; as soon as the boy can understand *puer puellam amat*, he can be made to see the varying emphasis in all the possible permutations of these simple words, and from such humble beginnings he may rise to a delighted perception of the very tone and manner of the ancients.

Even a slight knowledge of word arrangement gives to Latin composition a much-to-be-desired interest. Since teachers generally are agreed that the making of Latin should be the chief means of fixing forms and syntax, this should be carried on, not occasionally, but constantly thru the course, even when the class is reading Vergil or Ovid. The elementary manual with its systematic drill in syntax cannot safely be omitted. After this come naturally the exercises based on the parts of Cæsar, Nepos and Cicero that are familiar to the class. Such exercises are abundantly provided in various good composition manuals; but sentences made on the same basis of text by the teacher himself will in many cases serve his purpose better, as having a fresher interest arising out of closer relations. In this exercise the teacher finds, or may find, an invaluable opportunity of estimating the pupil's knowledge and of getting at the pupil himself. Instead of being, as it often has been, a byword for all that is dry and profitless, Latin composition, rightly treated, can be made, and is made by some, quite as interesting and fruitful as any branch of Latin study. And yet, to judge from the showing at the college entrance examinations, this subject is sadly neglected in many schools.

Translation into English has been and must be the main matter in classical study. Rightly managed, it is an unsurpassed means of sharpening the understanding and of gaining a mastery of the mother tongue. It is a twofold process, an analysis of the highly complicated original sentence and simultaneously a synthesis of the English words, phrases, and clauses that are found to be the equivalents of the Latin. It is no more a study of Latin than of English composition; and for generations was practically all the training in English to be had in the higher schools and colleges. It is undeniable that such discipline bore some splendid fruit, which has not yet been surpassed, if equaled, by the present systematic training in the vernacular. How difficult genuine translation is, a rendering that combines spirit and letter in the best way possible, every classical teacher knows from his own case, and is, or ought to be, prepared to deal gently with the erring pupil.

Still, his stock of patience needs to be very large. The ordinary "translation English" of the classroom is indeed a shocking thing, and lends some color to the gibe of the Philistines, that students not only fail to learn the ancient languages but unlearn their own in the attempt. And yet, in spite of his apparent helplessness, the pupil often has a fair understanding of the passage he is dealing with. His trouble lies in the two-fold nature of his effort, in coupling simultaneously with his Latin analysis his English synthesis. The supply of English words at his command is small. For every Latin word in the sentence he has, probably, one English equivalent. "*Fides*," for instance, is always "faith," tho it stands also for "credit," "credibility," "truth," "conscientiousness," etc.; so "*res*" is always "thing" or "affair," tho it may stand for anything concrete or abstract, according to the context. Besides, there is the natural tendency to transfer, rather than translate, the Latin words, by using the obvious English derivatives, regardless of the fact that in very many instances the English meaning has wandered far from that of the classical original. And not only must he work with a scanty vocabulary in both languages: with the conscientious feeling that he must be accurate and literal, he is prone to give the numerous participles just as they stand, perhaps too the infinitive with subject accusative and the passive impersonal. With the best intentions and with some well-earned knowledge, he makes but a poor showing. Another pupil, perhaps, of a more offhand temperament, will glide freely over the characteristic points of the Latin and produce a superficial paraphrase. To be as literal as the English idiom permits, but in no case to violate English idiom, is of course the guiding principle; but the thoroly successful application of it is beyond the power of the schoolboy, and of the great majority of college students. It is, I repeat, largely a study of English diction and style. A mature taste, a copious vocabulary in both languages, an intimate knowledge of Latin and of Roman life and thought and, in the case of a poet author, a feeling for poetry amounting to a poetic gift, are qualifications demanded in a real translator. Naturally few such are

to be found in the classroom, either in the chair or upon the benches.

But tho perfect translation may well be the despair of the ordinary student or teacher, there is abundant recompense for conscientious work. Inspired with this conviction, the teacher will impress it upon the pupil that the cardinal sin is to violate good English, and that, with this point guarded, the version must be as literal as possible. He will see to it that the grammar of the translation, whether oral or written, is right; that the diction is correct and appropriate, and that the style is clear, simple, forcible and smooth. What better training in practical rhetoric can be found, provided the teacher is himself well trained not only in the Latin language, but in English rhetoric, in addition to the indispensable requisites, personal magnetism and teaching power.

This ideal teacher will find methods of his own to accomplish the purpose in view, and these will doubtless prove the best for his pupils; but he will not be slow to try promising methods of other people. One or two suggestions therefore may not be out of place. Oral translation at hearing has already been spoken of as a means of getting a direct grasp of the Latin; it is perhaps equally serviceable in giving a ready command of English idiom. The time-honored oral translation read from the Latin text must continue to be the practical stand-by with large classes; and widely differing results have been and will be accomplished with it by different teachers. But the monotony that is apt to be felt by pupil and teacher alike may be appreciably relieved by writing. A passage translated upon the blackboard, whether by teacher or pupil, fixes attention, awakens intelligent criticism and serves as a useful object lesson for the correction of common faults. For the benefit of individuals, translations written by them in the classroom,—seldom elsewhere, for obvious reasons,—may be made the subject of personal conferences to the limit of time and strength. Then, too, by way of adding example to precept, after the assigned lesson has been gone over in the class, section by section, the teacher should render it as a whole with

great care, showing the standard toward which the pupil is to work. Much that is not assigned to the class ought to be translated to it by the instructor,—omitted chapters, for instance, and other writings of the same author that may be included in the text-book, especially if they throw light on the subject-matter in hand. This implies explanations and suggestions showing why this or that word or phrase was chosen rather than another one,—more commonplace perhaps and such as students are too apt to choose,—and disclosing the various methods and devices of the practiced hand.

Particularly in verse translation is this guidance needed. The young pupil has no clear conception of the essential difference between poetry and prose. His reading of Vergil ought to be a literary awakening. The teacher should be constantly on the alert to note for himself wherein lies the poetic quality of this or that word or phrase in the original; and in the lame translations, which are sure to be given, he should explain just how they come short. With a keen scent of his own for bathos, he will deem it an important part of his duty to point out how this ever present quality in the pupil's efforts may be banished, and why the substituted word or phrase is better. Matthew Arnold, in his lecture on "Literature and science," tells of a student who in paraphrasing the line of *Macbeth*, "Can'st thou not minister to a mind diseased?" made it into, "Can you not wait upon the lunatic?" and the apostle of culture remarks that he would rather have a boy know this to be bad, even the ignorant, say, of the moon's diameter, than have him know all about the moon and yet be incapable of detecting bathos.

This active responsibility of the teacher has equal scope in sight translation. The power to read at sight Latin that has never before been seen by the reader is extremely rare, if by "sight" we mean on the instant. Even a draft payable at sight turns out generally to be payable on three days' sight; and Latin to be read at sight should have at least three minutes' grace. What is meant by "sight reading" is that the pupil, after taking a brief time to read over a passage before unseen

by him, should be able, without assistance, to translate it into respectable English. As we have seen, this power is, or ought to be, the chief aim of Latin study; and as it is the final attainment, pupils in the earlier stages cannot be expected to possess it in any high degree. Here it may be objected that the entrance examinations in some colleges consist almost wholly of unseen translation. True, and not unreasonably, it would seem, when the conditions are taken into account. A half hour or so is allowed for each passage of a dozen or fifteen lines. The general drift and connection are briefly explained to the candidate, and unusual words—that is, such as have not occurred three or four times in his reading,—are translated for him. The passages present nothing more than the average difficulty of an author with whom he has become familiar. If under these favoring circumstances he produces a rendering that is a little more than half right, he passes. This is not calling for greater proficiency than can fairly be asked of pupils who have studied Latin four years, with five one-hour exercises a week. And the papers show a good degree of proficiency,—quite as much as those handed in under the old system of setting passages taken only from the previously studied parts of the authors.

Former methods have tended to foster in the pupil something of the same dread of unseen Latin that a child has of going into a dark room. Our methods ought to be such that after four years of study a boy would find no room in the Latin domicile wholly dark; whilst in several spacious apartments he should be moving about with the ease and confidence of one at home. On the other hand, the student must be taught that sight translation is real translation, not mere guess-work, not riding roughshod over forms and constructions, trusting to arrive at some tolerable meaning. Experience has shown that in entrance examinations a grammatical test is necessary in order to make sure that the candidate's attainment in reading has real solidity. All genuine translation must rest on a Spartan drill in forms, especially those of the verb, so that the significance of the manifold endings of declension and con-

jugation shall be unconsciously *felt* at a glance. Three-fourths of the troubles of the Latin student lie right here.

If the results obtained from the sight-reading exercise are disappointing, it is worth while to consider whether the Latin so treated is not too difficult. It is certainly desirable, while reading Cicero in the regular way, to do sight-reading also in Cicero; but great care must be taken to select the easiest parts, and in the beginning, the simplest parts of Cæsar will probably not prove too simple for the Cicero class to read at sight. It is most important that the pupil's confidence in himself should be more and more established by success, and not undermined by defeat. Practice should begin as soon as he can tell what *puella amat* means, and should be religiously carried on, duly graded, to the end of the course. The text-book in use will furnish the most convenient material to choose from, but as so much depends upon a successful choice, the specially prepared selections for sight-reading may be preferred.

Hardly a subject in the course gives the teacher so good an opportunity to teach. By reading the Latin again and again with the fullest expression, he can almost convey the meaning directly without translation to the pupil's mind. In giving such assistance as is needed, he will rarely tell the student outright; but by leading him to compare, combine, deduce,—in short, to think,—he will not only help him win for himself the desired information, but will be stimulating his mental growth. Many teachers and many pupils can testify that they find the sight-reading exercise the most interesting and the most profitable of the Latin course.

Our attention has been so taken up with the language itself that we may have lost sight of the fundamental principle that Latin is to be studied because the Latin writers, in and for themselves, are worth reading and worth knowing. And herein, no question, Latin students have been sinned against. They have been allowed to go on in a mechanical way, reading parts of Cæsar and Cicero, with little attention to what these writers say. It is to be feared that many leave Cæsar without any clear idea of his campaigns in Gaul, taken as a whole, to say

nothing of any conception of the influence of that conquest on the history of Rome and of Europe. Caesar's own personality is apt to be but imperfectly grasped. Cicero's personal qualities are better apprehended, perhaps too the orations, in a general way; but even a careful reading of an oration does not suffice to give a clear knowledge of the subject-matter as a whole, nor of the relations of the several parts. After studying the analyses in the text-book, the student should receive such aid from the teacher's exposition as will enable him to give a full and definite account of the material presented and of the thought connection; and, in an oration so normally constructed as that for the Manilian Law, the rhetorical structure should be fully understood. It is often difficult to get even from good students an intelligent statement of the thought contained in a paragraph just read, and, still more, of the connection with the preceding context. But the teacher should not rest until the pupil is able to tell in his own words what the meaning and connection are; he must be trained to look at the thought and to reproduce it.

In this regard, classical study is greatly aided and enriched by the judicious presentation of such facts of history, geography and of Roman life as bear directly upon the matter in hand. Books, maps, photographs, slides, casts, etc., may be had for a comparatively small sum. A list of books recommended for a high school classical library by a committee of the Michigan Schoolmasters' Club may be had of the Macmillan Company for ten cents. But with two or three books, such as a classical dictionary, Schreiber's *Atlas of classical antiquities*, edited by Anderson, and Johnston's *Private life of the Romans*, the ancient world may be made a real world of flesh and blood to the young student, altho his natural tendency is to consider it altogether vague, remote and bare of human interest. The difficulty of keeping this work duly subordinate to the main purpose is not so great as that of finding the necessary time for occasional lectures and the stated discussion of topics. In so far as such time must be taken from the regular work, an occasional half-hour may be gained if the instructor reads and

comments upon the lesson of that day without calling for recitations. The loss here is hardly appreciable; but how to provide out of the crowded preparatory course the needed additional time is a problem that perhaps will remain unsolved until Latin is regularly begun in the last years of the grammar school.

In all educational discussion, it is almost painful to note the constant recurrence of the phrases "the well equipped teacher," "the wide awake teacher," "the sympathetic teacher," etc.,—painful, because of the implied existence of the opposites. But the deeper implication of such phraseology is the unquestionable truth that the teacher is the school. After making due allowance for hindering circumstances, it may be said that his pupils are in large measure the product of his mind and will and heart. If all-round perfection exists among men and women, those individuals who possess it or approach it have an unmistakable call to teach. No calling, unless it be the ministry, so urgently demands character, sympathy, tact and cultivation. But granting the vital condition of possessing the teacher's temperament, another only less vital condition must be met, viz., a broad and constantly broadening knowledge of one's subject. The study of the classics is primarily the study of Greek and Latin, but practically it is the study of ancient life in all its aspects, political, social, literary and artistic. In order to comprehend these properly, the corresponding aspects of modern civilization must be known and understood. Both ancient and modern history, biography, literature and literary criticism must be known to some extent, and cannot be too thoroly known. Yet, strangely enough, some imagine that the classical teacher is necessarily a narrow man. There are, to be sure, narrow specialists in the classics as in all other departments of learning, but the true classical teacher cannot be narrow. Altho, in this modern age, he can hardly say with Bacon, "I take all knowledge to be my province," he may rightly say, "I take all literature, especially Greek and Roman literature, to be my province."

It need hardly be said that few or none realize this ideal.

altho many strive earnestly toward it. There are some, however, whose intellectual curiosity is more limited; possibly some who never have felt moved to investigate the preparatory authors themselves beyond the parts usually read by the class. Altho many teachers have begun work with no larger knowledge of these authors than such reading implies, no one should rest content to teach Cæsar or Vergil without having read for himself every line of their works. In so voluminous a writer as Cicero, with his more than four thousand Teubner pages, the whole ground is seldom gone over outside of Germany; but at least all the orations usually given in the text-books the teacher should find time to read, and as many others as possible, especially those against Verres and Antonius; certainly the essays on old age and friendship, and a large selection of the invaluable letters, which make the men and events of two thousand years ago as vivid as those described in to-day's newspaper. So in Greek the teacher should read not only the entire *Anabasis* but the *Memorabilia* and *Cyropædia*, and surely all of Homer. Far better read these additional portions and other writers in translations than not at all; but a classical teacher, for the sake of his own growth, must never cease reading new Latin and new Greek.

WILLIAM A HOUGHTON

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VI

CATHOLIC CITIZENS AND PUBLIC EDUCATION

A BRIEF STATEMENT GIVING REPORT OF ATTENDANCE AND EXPENSES OF PARISH SCHOOLS IN THE CITY OF NEW YORK

The parish school is a factor in the public educational work of the United States and should not be classified under the heading of private schools, in which large tuition fees are charged and social distinctions recognized to favor the children of the wealthy. No such limitations are met with in the parish schools, founded and supported, with few exceptions, by representatives of the common people.

According to existing laws in New York State, citizens have the unquestionable right as parents and guardians to provide for the religious and secular education of their children. This right is exercised by the educational associations, formed within parish boundaries, to establish and perpetuate parish schools chiefly for kindergarten training and elementary instruction. The citizens who form these societies are sincerely devoted to the public welfare, and would quickly resent any imputation against their patriotism. They demand for their children definite and dogmatic religious instruction, according to the faith professed by at least two hundred and fifty millions of Catholics thruout the world. It is well understood that the teaching of religion is not within the power of the state: neither can the public funds be used in aid or in maintenance of any particular form of religious belief.

At the present time, in New York State, the patrons of Christian education are paying from their own hard-earned money the cost of educating about one hundred and fifty thousand children in the Catholic parish schools. For the defense of their conscientious convictions, they have erected in many places commodious fire-proof buildings, thus relieving their fel-

low-citizens of a large amount of local taxation. Another important claim is in the fact, that this arduous work of training the young in Christian virtue is an immense advantage to the state. It leads to the highest type of citizenship and supplies a most effective antidote to false socialistic theories. Surely, a public recognition of the voluntary efforts of parents to educate their own children would not demand a union of church and state. It would require only an act of long-delayed justice to indicate grateful appreciation of the loyal citizens whose millions of dollars are spent in the support of parish schools. Public thanks are given to other citizens for gifts representing much less total expenditure, and of much less value to the public welfare. From the statistics given in this statement, the calculation can be easily made as to the total expense on the basis of twenty-five dollars a year, as the cost of each pupil. By adding the cost of buildings and property, the figures for New York State are to be found high up in the millions.

In presenting our claim to fair-minded citizens, it is assumed as a starting point that the parish schools can and ought willingly to provide for the entire expense of imparting religious instruction. Among reasonable people a basis of agreement can also be made on equitable terms by which these parish schools—without losing their autonomy—may co-operate with any board of education in the teaching of the secular studies prescribed for citizenship. The managers, according to this plan, legally transfer the control of the secular studies to a board, authorized by the state, when they consent to accept the public standard of examination and inspection. Between church and state the present relations could be continued without friction, by granting this equitable demand for recognition, together with payment for results, strictly limited to the teaching of the secular studies. To pay for the teaching of arithmetic or other similar studies does not bring the state outside of its bounden duty to provide for representation as well as for taxation. Phantom objections, from bygone bigots, may be placed in evidence, but it is to be hoped that sound thinkers will now give serious consideration to the real facts of the case.

The American principle of fair play and no favor can be applied to remove, in part at least, the unjust burden imposed upon the patrons of parish schools.

The members of the undersigned committee represent the City of New York, which is the largest center of Catholic population in the United States, and is under the patronage of the glorious Saint Patrick. We venture to express the hope that this appeal will have a wide circulation among Catholics and non-Catholics. It contains a frank statement of a grievance that should be faced by all who wish to advance the welfare of our beloved country, and to make the American flag a symbol of justice to all God-fearing men. The leaders in Catholic organizations seeking to promote religious zeal, civic virtue and fraternity among their members, may safely be trusted to spread abroad the figures herein given, and to insist that the editors of papers, supported by their patronage, shall give some space to discussions of their cherished convictions. A similar policy should be adopted towards every public official, responsible for the publication of educational statistics. In the past there has been evidence of a conspiracy of silence in regard to Catholic education.

During fifty years or more in New York City, large numbers were taught in the parish schools lessons of Christian virtue and patriotism. Thousands of these graduates are now voters, able and willing to give proof of their capacity for citizenship and success in business. To them especially it will be a labor of love to assist in the movement to remove false impressions and bring about a better understanding of the gigantic work that has been done in Catholic schools for God and our country.

Committee of
New York
Catholic
School
Board

{ Right Rev. MONSIGNOR MOONEY, LL.D., V.G.,
Director of the Sacred Heart School
Very Rev. DENIS PAUL O'FLYNN,
Director of St. Joseph's School
Right Rev. MGR. LAVELLE, LL.D., V.G.,
Director of St. Patrick's Cathedral School
Rev. THOMAS McMILLAN, C.S.P.,
Director of Schools of Paulist Fathers

The following supplementary statement is taken from a recent pamphlet entitled *The parish schools of New York*, published by the Columbus Press, 120 West Sixtieth Street, New York:

While there has been much alarmist writing, welcomed by certain editors for reasons best known to themselves, it still remains an invincible truth that no part of the American Constitution would be endangered by a just recognition of the parish schools in their valuable work for public education. General taxation to secure free schools would still remain in full operation as a necessary measure of safety for universal suffrage.¹ The acceptance of examination and inspection under state control would amply safeguard the secular studies required for citizenship. Catholic citizens stand ready to give the largest scope to patriotism, while providing for children, at their own expense, a definite and dogmatic system of religious knowledge in accordance with the teaching of Christ.

Under the direction of the Right Reverend Joseph F. Mooney, V. G., Chairman of the New York Catholic School Board, a report has been prepared showing the number of

¹ We wish to save the (public school) system by simply removing what it contains repugnant to the Catholic conscience—not to destroy it or lessen its influence. We are decidedly in favor of free public schools for all the children of the land, and we hold that the property of the State should bear the burden of educating the children of the State—the two great and essential principles of the system which endear it to the hearts of the American people. Universal suffrage is a mischievous absurdity without universal education, and universal education is not practicable unless provided for at the public expense. While, then, we insist that the action of the State shall be subordinated to the law of conscience, we yet hold that it has an important part to perform, and that it is its duty, in view of the common weal, and of its own security as well as that of its citizens, to provide the means of a good common school education for all its children. . . .

The State has no right to make itself a proselyting institution for or against Protestantism, for or against Catholicity. It is its business to protect us in the full and free enjoyment of our religion. . . . The case is one of conscience, and conscience is accountable to no civil tribunal. All secular authority and all secular considerations whatever must yield to conscience. In questions of conscience the law of God governs, not a plurality of voters. The State abuses its authority if it sustains the common schools as they are with a view of detaching our children from their Catholic faith and love. If Catholics cannot retain their Catholic faith and practice, and still be true, loyal, and exemplary American citizens, it must be only because Americanism is incompatible with the rights of conscience, and that would be its condemnation.—*Dr. Orestes A. Brownson in the Catholic World, April, 1870.*

pupils and teachers, and an estimate of the annual cost of maintenance—about \$500,000 for 55,629 children—and close to the sum of \$10,000,000 invested for parish school property and buildings. For the first time the official report just issued of the State Department of Education at Albany, contains a distinct mention of the attendance at Catholic schools in New York State. This recognition had been long desired, tho persistently refused. From the figures here given students of educational statistics may now more accurately observe the indications of American intellectual and moral progress, especially those coming from Europe who have formed erroneous conclusions from previous reports.

The value of school buildings, as stated, is probably well below the actual value to-day, representing as it does in practically all cases merely original cost. As regards maintenance, it will be noticed that the average cost per pupil is moderate. The reason for this is, of course, mainly in the fact that a very large proportion of the teachers in the Catholic parish schools are religious, who receive little pay for their work. Another reason for the low maintenance cost is, no doubt, the fact that in many cases expenses of lighting and heating the schools, interest on mortgage for school building, etc., are charged directly to church account of each parish.

The figures here given indicate only the attendance at parish schools, excluding colleges, academies and institutions containing children not living at home with their parents. It is important to make the distinction that the parish school is in direct communication with the home influences, and is to be differentiated from institutions for destitute and homeless children. In the whole Archdiocese of New York, which extends far up the Hudson River, there is a total of 55,629 pupils, with 1128 teachers, in the parish schools. This number, taken in conjunction with the reports from asylums and institutions, shows about 82,750 under Catholic care and instruction.

Owing largely to the untiring efforts of Archbishop Farley, the expenditure for maintenance of the parish schools has considerably increased within the past year, showing a total of

almost half a million of dollars, while the estimated value of property and buildings may be computed at ten millions, making allowance for the lack of complete figures in some of the reports.

Honorable mention is due to the large number of volunteer workers for the uplifting of the masses in the various parishes. Among these workers are to be found many representatives of prominent families enrolled in philanthropic and religious associations, as well as the members of various organizations, notably the Ancient Order of Hibernians, the Knights of Columbus and the American Federation of Catholic Societies, whose recent declarations and resolutions give evidence of renewed vitality for the cause of Catholic education. It is to the glory of the Empire State that so many of its citizens do not need any compulsory law to enforce attendance at school. They take the initiative in promoting the standard of intelligent citizenship. All the counties of New York State are represented in the following summary, from each diocese, together with an estimate of Catholic population.

FROM CATHOLIC DIRECTORY OF 1905.

	<i>Parish School Pupils</i>	<i>Students of Colleges and Academies</i>	<i>Catholic Population</i>
New York.....	55,629	6,094	1,200,000
Brooklyn .. .	35,652	1,334	500,000
Buffalo.. . . .	25,112	2,015	195,000
Rochester.....	17,231	323	115,000
Albany... . . .	15,370	376	172,755
Syracuse... . .	5,100	688	117,500
Ogdensburg.....	3,958	—	83,500
	<hr/>	<hr/>	<hr/>
	158,052	10,830	2,383,755

THOMAS McMILLAN

NEW YORK, N. Y.

VII

THE QUESTION OF PROBLEMS IN ELEMENTARY MATHEMATICS

Altho each succeeding generation has sought to lay them aside, the guild of teachers of elementary mathematics is never able to free itself from certain vital issues. They are as old as teaching, and as enduring as the race. Altho some single one may be set apart for a little season, the burden is soon as heavy as before, and what seemed a goal proves a mere temporary station in the ceaseless journey. When Euclid established his sequence in geometry, the most remarkable of these stations in all the advance of mathematics was attained. So confident was the world that a final goal had been reached, that for many centuries the crux of this question rested undisturbed, and only within recent generations has it begun to bear heavily again on those who direct the progress of mathematical education. To take another example, we have, in the United States, just seen the establishing of another temporary halting place in the excellent report of Professor Tyler's committee of the American Mathematical Society, on college entrance requirements. This report has been welcomed as remedying for a season an unpardonable diversity of work in our secondary schools; but every one recognizes that the question must soon be reconsidered, and never can and never should be settled.

Just at present the most prominent issue before teachers of mathematics in this country is that of the nature of the problems to be used. This is not because of any intrinsic importance of this question as compared with divers others, but because, thru circumstances easily discovered, it has been the subject of more agitation. In other words, it is just now the fashion, and such a fashion is valuable in so far as it leads us to an intensive study of some issue. It becomes unfortunate when it leads teachers to look upon all other issues as trivial in com-

parison, and to feel that upon some single question like this depends the success of elementary instruction.

Taking the word Problem in its proper sense, as covering all forms of exercise in mathematics, and considering the word Elementary to refer to the work thru the calculus, we may roughly classify the problems of elementary mathematics as follows:

1. Unapplied problems, in which the sole purpose is to furnish an exercise in manipulation. Such are the abstract problems in multiplication in arithmetic or algebra, in differentiation and integration in the calculus, and in the construction of required figures in geometry. Such problems may be: (a) Those which will enter into applications or theory to be considered later, like the ordinary cases of addition; or (b) Those which at present find no genuine or at any rate immediate application, like the long division form of greatest common divisor.

2. Applied problems, in which the chief purpose is to put into mathematical language certain data, with a view to solving an equation and finding the answer to some question proposed. Such are the ordinary applied problems of elementary mathematics. These may be: (a) Those which are genuinely concrete, setting forth real conditions which the pupil can understand and in which he may have some interest; or (b) Those which relate to no genuine conditions, which are apparently of an artificial nature, and which are therefore quite as abstract and uninteresting as the unapplied problems, altho affording exercise in translation into mathematical language. Such are fully ninety per cent of the so-called applied problems of algebra and the calculus.

Having now roughly classified the problems of elementary mathematics, it is proposed to consider the nature of the present agitation, and the probable outcome.

The practical nature of the American has so influenced the schools that, in spite of the recognition of higher values, the tendency has been to eliminate the unusable element of the unapplied problems. Chiefly on this account have circulating decimals been eliminated from our elementary curriculum, and

the discussion of trinomial factors from algebra. In the main, the unapplied problems left are those which are involved in later applications, or are required in some advanced theory which is itself applicable. It is felt in America that whatever of "mental discipline" there may be in the unapplied problems of mathematics, such as the establishing of habits of logical procedure or of generalization, can be as well secured thru usable as thru unusable problems.

The present agitation centers around the second class, the applied problems. Here two lines of assault on the citadel of *laissez-faire* are being pursued. The first proceeds on the theory that there should be no problems in elementary mathematics except genuinely concrete ones; that in arithmetic the child should never add 542 and 327, but should add 542 ft. and 327 ft. in some real problem in which these measures enter. The second line of attack proceeds on the theory that there must always be a fair balance between unapplied and applied problems, the former being like finger exercises on the piano and the latter like the playing of tunes; the former concentrating the attention on the operation, the latter on the translation from ordinary to mathematical language, from words to symbols. It also seeks to weigh with greatest care every applied problem, not with the feeling that it must be genuinely concrete and practical, but that it may not be deceiving.

The leaders of this first line of attack, having assumed that mathematics has its chief value in its concrete applications, have been forced by the paucity of such applications in the older books to invent new ones, a laudable step from any standpoint. Several of these leaders being interested in physics, it has occurred to them to seek the needed applications in this field, and so we have a considerable sentiment in favor of physical problems thruout the high school, and even earlier. The leaders of the second line feel that it is absolutely impossible to secure enough genuinely concrete problems to meet the needs for exercise in generalization and in logical statement, and that therefore some other line of applied problems is necessary,

a position which those in the first line of attack feel to be reactionary.

The position of these two classes now being understood, what are the prospects? In the first place we may safely say that there is to be no radical change in our problems. No such birthright of the race is up for sale for some uncertain mess of pottage. Teachers are not going to give up those unapplied problems which furnish the abstract drill work, because they know perfectly well that the necessary facility of operation cannot be secured thru the limited number of applied problems possible. We may therefore look to a continuance of the traditional balance between the applied and the unapplied. The only change in the latter class is likely to be in the replacing of exercises that have no future significance by those that have.

In considering the question of applied problems it must be recognized that there are four well defined subgroups:

1. Problems that represent genuine conditions, real problems of the present. Such examples are easily secured in arithmetic, their usual lack being due to the fact that compilers find it easier to copy inherited exercises than to search for new ones. In algebra, however, they are not found save with great difficulty. Physics furnishes only a very few types, the recent efforts to find others being disappointing even to the most enthusiastic. There are a number of types of business problems, involving only a single unknown in a linear equation, but we have practically no good modern applications of general quadratics that are within the comprehension of the pupils. In geometry there are exceedingly few propositions that admit of practical application. The parallelogram of forces in physics, and the pythagorean and a dozen other propositions in mensuration, are all that admit of being called genuinely utilitarian. In trigonometry, the surge of analysis which began to become prominent in the 18th century, has crowded out a large range of excellent applications to be found in early text-books, and here we may hope for some reform. The calculus has seemed in a hopeless state until recently, the applications being as unreal as those of algebra. A reform is now in progress, however, and it is reasonable to expect that this branch, which has

such a large range of applications, may soon claim its utilitarian as well as its culture rights. Our analytic geometry, which most text-books present as nothing but Apollonius of Perga treated in the cartesian manner, has many possibilities from the standpoint of applied problems, but the field has hardly yet been touched.

2. There is a second and well known class of applied problems which have had an honorable career in the teaching of mathematics. These may be characterized as mathematical puzzles, making no pretense to being utilitarian, and having their chief value in the interest which they excite and in the exercise which they give in the translation of questions into algebraic symbols. There is a feeling in some quarters that these problems have fulfilled their mission, but it is rather probable that we shall see more of them in the future than we have in the past. Rightly used, they serve an excellent purpose; they excite the interest, they give the drill, they make no pretense to be what they are not, and they help to fill the void that exists, and seems liable to exist, in the range of applied problems of algebra. We have a large but ill-arranged literature on mathematical recreations at the present time, and it is to be hoped that this may be so digested as to furnish some valuable material for text-book makers.

3. There is a third class of applied problems that is also liable to maintain its place. Problems of this class once set forth genuine applications of the day, but changed conditions have left them as mere relics of the past. Such are the well known cases of the cistern pipes and the couriers, serving the twofold purpose of showing the historical development of mathematics, and acting as recreative exercises. It is unfortunate that more is not made of these antiquities, treating them as such, and thru them telling some of the story of the science.

4. A fourth class of applied problems consists of those which make some false pretense. In arithmetic these problems give wrong ideas of business, being tolerated because of a mistaken notion that some kind of mental discipline is secured from a question that tells a falsehood about actual life. In algebra they are tolerated, as in certain problems under quadratic equa-

tions, because of the paucity of genuine applications. But their use cannot be justified, and we may reasonably expect the common sense of teachers to banish them, as it has banished the absurd problems of alligation from our arithmetics.

To summarize the matter the following seems within the range of probability:

1. No radical change will be made in the balancing of the abstract and the concrete, since each serves a purpose that the other does not.
2. The abstract problems will be limited to those usable in future work.
3. There will be a recognition of the fact that physics, or more generally science, furnishes but few distinct types for mathematical problems, and is not a panacea for the ills of elementary education.
4. There will be a more complete recognition of the value of the mathematical puzzle thruout the course.
5. There is liable to be a recognition of the value of problems of historical interest, as recreations, as drill, and as the basis for the fascinating story of the development of mathematics.
6. Teachers will not be led away by impractical, ill-considered, dangerous suggestions that any one of the several types of problems mentioned is a panacea for all the ills of mathematics, to the exclusion of all others.
7. The greatest improvement of all, however, will be in the earnest effort of teachers to secure genuine applications, not so manifestly beyond the interests of the pupils as are many that have been suggested, but such as shall make the mathematics of the high school and college as real as arithmetic is coming to be. At the same time it will be recognized that there will probably never be enough such problems, particularly in algebra, to supply all the exercise needed in translating applied problems into algebraic language, and recourse will be had to the puzzle, either in its traditional or in some modern form.

DAVID EUGENE SMITH

VIII

DISCUSSION

INTERNATIONAL CONFERENCES OF EDUCATION AND THE BERN CONFERENCE

The nations of the world are at school. None has yet reached such perfection either in the administration of its government or in social and economic advancement that it can regard its education as completed. At the present moment France is learning some peculiarly interesting lessons about alliances and the dangers which attend them. Norway and Sweden are learning mutual respect and, by the exercise of candor and self-restraint, are showing how, in these latter days, revolutions may be accomplished without war. The republics of South America, some of which have scarcely yet learned the alphabet of the science and art of good government, are painfully acquiring lessons of order, industry, and intelligence under the sane example and tutelage of the great nation lying to the north of them. Japan is gaining a national self-consciousness without undue conceit, and is training herself in all those virtues that make a people great either in peace or war. Russia, alas! is learning too late that a nation's strength in modern times rests upon the intelligence, the loyalty, and the national pride of her people. She is being so severely disciplined in the hard school of adversity that there is good hope that under the impulse of this self-revelation she may learn the lessons of honesty and fair dealing and may adopt the golden rule as a national motto.

Not only are nations educable as regards their corporate life, but all those elements that go to make up citizenship and the joy and comfort of living are capable of continuous culture and improvement. It is the fact that standards of character are ever being raised and that thru education men and women can be brought up to those standards. I do not by this mean simply the education of the schools but the process which,

begun in school and home, is carried on thru life, enriching, sweetening, and elevating both work and leisure. Nations learn much from each other. No people is able for any great length of time to preserve secrets, whether in respect of the composition of smokeless powder or the best kind of armor-plate for battleships. The most ingenious machines and the most subtle discoveries in the arts are studied and copied.

The international conferences now held so frequently and in such variety are economical means of short-circuiting the world's knowledge. During the past year there have been several of these conferences, as, for example, that of Drawing and Art at Bern, one on Mathematics at Geneva, one on Psychology at Rome, the Congress of Orientalists at Algiers, of Archæology at Athens, of Agriculture at Rome. The most developed and the most firmly established conferences appear to be composed of groups of scholars engaged in research. Especially successful and valuable have been those in the various fields of applied science and medicine. Some of the greatest and most beneficent discoveries have first been made public at these international conferences and so have been placed at the service of the world.

Not only do international conferences bring scholars and scientific workers of different countries into friendly and sympathetic co-operation, and tend to disseminate the fruits of painstaking research for the use of all mankind, but they are an important factor in bringing the leaders of thought of every nation together, thus sowing the seeds of international fraternity and good will. The Scripture dictum, "Be not forgetful to entertain strangers," has been practically applied over and over again when municipalities have opened their doors to the world's representatives of some great cause, as Prison Reform, Religious Federation, or International Arbitration. The great Peace Congress in Boston, in 1904, was a fine illustration of the faith and high optimism which are engendered when prophets and seers from remote nations come together and join hands at the shrine of human brotherhood and the higher destiny of man. A great city opens its doors most generously, and such is the compelling power of the moral issues involved in the thought of universal peace that the whole nation receives an

impulse whose vibrations are felt to the ends of the earth. What is true of such an international meeting is true of all such meetings whatever the subject-matter may be. The more varied and close are the relations established between men and women of different peoples the easier it will be to secure the federation of nations, to establish an international court, and make an end of devastating war.

It is a little remarkable that in the field of the administration of schools and colleges and teaching there has been less of international conference than in almost any other field of great importance. There are several distinct departments of educational work in which international conferences could do much for the cause of general education. These are: (1) Administration of schools for the people; (2) the training of teachers; (3) the management and instruction in secondary schools and colleges. Almost the entire field of university work is covered by some of the conferences and associations already organized. In the other fields named little has been done. That there is supreme need of such international meetings of school officials and educators may be patent to anyone at all familiar with the conditions in the several countries. A city school system in Austria or Prussia has excellencies which are quite unknown except to a limited few either in England or America. It also has defects of which its own officials and teachers seem quite unconscious. Our forty-five states, each an empire in itself, with its constant attrition and enterprising readiness to experiment which is in vogue, have systems of schools at once broad, thoro, and elastic, in which culture and power are almost equally sought. It is a national school system in the making that is now to be seen in the United States. The free movement and philanthropic motives which inspire American public education offer a good object-lesson to foreign visitors, as many of them are prompt to confess. On the other hand, the more definite aims and superior technique to be seen in the schools of Germany and France are worthy of our most careful study. After all, it is a species of despotism that permits the education of children to be dominated more by national aims and ambition than by human needs and the teachings of psychology. Education, the

world over, should be for the child and for the highest manhood and womanhood. Caste and red tape and the restriction of individual opportunity must give way to the higher humanism, which seeks equal freedom and happiness for all.

It may be said in passing that one finds peculiar difficulties in trying to visit foreign schools. Why the German educational authorities regard it as such a concession to permit a stranger to visit the schools, or why the classrooms of the great public schools of England are hermetically sealed to educational investigators, has not yet been explained. Not only is it difficult to enter the schools, but once in it takes a long time to get a bird's-eye view of the situation. It is thought to be objectionable to have persons enter a classroom while the recitation is in progress, and so one must remain several hours to get a good idea of a single school.

International conferences would tend to dispose of old rudimentary forms and to introduce everywhere a spirit that is at once modern and human. The educational experience and knowledge of the best minds in every nation would be short-circuited and placed at the disposal of the world. The gross ignorance now prevalent in Europe touching American educational work would soon be dispelled, for our countrymen are not only able to do things, but are not backward in telling how they should be done. The same secretiveness that keeps school behind closed doors might make some European educators indifferent or hesitant about joining in such conferences, but this conservatism would soon give way to a purpose so promising of good results and so fraught with mutual interest and enjoyment.

In one department at least of general education a good beginning has been made in a concerted international movement, and that is in drawing and applied art. The interesting conference on this subject held in Bern one year ago not only deserves more serious mention than it has yet received, but may be taken as an illustration of the force of what has been said about international conferences in general. This was the second conference of drawing, the first having been held in Paris in 1900. At the first conference Miss Mary C. Wheeler of Providence was almost the sole American representative, and it

was due entirely to her enterprise and initiative that delegates were appointed and persuaded to attend the conference of last summer. Being an artist and having for years made art studies an important feature in her own excellent school for girls, she felt the necessity of a wide movement for a broader art training in the lower schools.

The beautiful city of Bern was made doubly attractive by the foresight and wise arrangements of the local committee. M. Léon Genoud, Director of the Technical Institute at Fribourg and chairman of the committee of arrangements, had been untiring in his efforts for the success of the congress. The opening session was held in the Parliament Hall of the Federal Building and M. Robert Comtesse, President of the Swiss Republic, made an address of welcome. A bureau of the congress, composed of one delegate from each country represented, held daily meetings and settled all questions touching the daily program, the scope to be given to the discussions, and all other matters not otherwise provided for. The regular sessions of the congress, which continued four days, were held in the attractive high school situated near the university. In the corridors and classrooms of this building were installed exhibits of drawing and designs by students of all grades from the kindergarten to the college and technical school. These exhibits were a telling feature of the congress and were eagerly studied by the eight hundred and more instructors and artists in attendance. Some of the delegates who had brought exhibits were kept busily employed answering questions and explaining their work. The addresses prepared for the congress and the conclusions which each speaker desired to urge were printed in German, French, or English, as the case might be, making a document nearly one-half as large as the annual report of the National Educational Association of the United States. Thus every delegate had in hand at the start the subject-matter of the congress and could be better prepared for discussion when the opportunity was afforded. The speakers did not usually read their papers, but in a few words called attention to the points which they wished particularly to emphasize. The President, M. Ed. Boos-Jegher of Zurich, who spoke fluently the three languages used, made the entire program intelligible to all pres-

ent by following each address with a brief statement in the languages not used by the speaker. Often he appointed others to act in this way as interpreters. While this somewhat retarded the progress of the program, it enabled all to get the substance and spirit of all the papers presented. Those from the United States giving addresses were Miss Wheeler, Mr. Fred H. Daniels of Springfield, Messrs. Churchill and Dutton from the Teachers College, New York; C. Howard Walker of Boston; and Dr. James P. Haney, Director of Manual Training, New York City. Others who took part in the proceedings were Mr. James F. Hopkins, Boston; Mr. W. A. Baldwin of Hyannis, Mass.; and Mr. Charles M. Carter, Denver.

Most of the addresses sounded a truly educational note in favor of art study as a means of human culture thru the development of imagination and taste rather than simply as a form of technical training. This idea was by no means wanting in the papers of English and French teachers. Germany did not make a strong showing from an educational point of view, either in the statements made or in the exhibits of work, altho certain exhibits from Bohemia were marvelously beautiful in their execution and finish.

This leads me to speak more particularly about the exhibits from the United States and the impression they made upon the foreign delegates, for it was in this connection that the potency of such a congress in diffusing sane ideas and securing educational reform is seen. A full, well-assorted, and splendidly arranged exhibit of work by pupils of all grades in the Springfield (Mass.) schools was perhaps most significant of what is now current in this country. Possibly many other cities could have done as well. Some no doubt could have done better in some particular feature. But the charm and compelling attractiveness of this Springfield exhibit was a revelation of child life and activity. It was not a scheme, but the absence of it, that was noticeable. It was not a gradation of steps, logical and painful, with its restrictions and retardations of growth, but a variety of opportunities for self-expression, which the child had eagerly and joyfully accepted and in which he had found true delight. It might have been a ramble in the field, the garden, or the forest, among flowers, birds, and insects, a walk along

the street, the study of a beautiful picture, the reproduction of a story with pencil or brush; whatever the occasion, the child was in evidence as a child, doing his best because happy and enthusiastic. There was constant progress thru the grades and during the high school, but at no point was there a kind of mature excellence which arouses the suspicion that the free play of feeling and imagination has been shackled in the interest of technical or industrial motives. Similar characteristics were to be observed in the work from Miss Wheeler's school, in that from Brookline, done under the direction of Miss Weir, as well as that from the Teachers College and from Hyannis. Other interesting exhibits from the United States were a unique course in composition and design prepared by student teachers under the direction of Professor Arthur Dow, and specimens of design applied in manual training from New York City.

To the thoughtful educator the greatest interest in the conference will naturally be found in the recognition which the American exhibit received from English and continental delegates. It may be said at once that in France, especially in Paris, there is a movement for educational drawing, so that while hitherto the child has been largely ignored, M. Guébin, now at the head of drawing in Paris, expresses his entire sympathy with the American work and hopes at the next congress to show results in the same direction.

To say that the English teachers gave hearty and unbounded praise to our work is not beyond the truth. Two or three of the most prominent English delegates gave emphatic sanction to the educational motive revealed in the American drawing and hoped that the English schools might be pervaded by the same spirit. They made a strong and successful plea for holding the next congress in London and urged the need of England for light and help as a chief argument.

M. Génoud, who was the leading spirit in the conference, as he was its efficient organizer, declared that America came off with honors. Several exhibits from the United States were solicited for exhibition in European cities, and afterwards are to become the property of the Swiss government. While the exhibits from most continental countries gave unmistakable evidence of the formal methods pursued in their schools, much of

their work was beautiful to see. It came from cities where art, architecture, and landscape gardening unite to create an environment and atmosphere that are in themselves educative and refining. Some work from the Glasgow School of Painting and from a few other schools showed that Scotland is alive to the true æsthetic motives of art training.

Some ten years ago the writer, being in London, went out to Harrow on the Hill and found in the great public school there the beginnings of instruction in manual training, a decided innovation for a distinctly classical school. It was therefore an enjoyable surprise to see among the exhibits at Bern some color drawings by pupils of that school from nature and other subjects which were well worthy the attention they received.

It would require too much space to discuss all the interesting features of the congress, the evening entertainments in the gardens and pleasure resorts of Bern, excursions to Fribourg and Interlaken with suppers, toasts, and speechmaking in which Europeans showed both grace and friendliness. Mutual acquaintance and pleasant intercourse made all feel well pleased that they could share in such a meeting.

Particular mention is not made in this article of the second section of the conference, which was devoted to special instruction, as it was not possible to follow the discussions in both sections. The resolutions adopted by the first section were both extensive and significant of the general trend of thought and belief. They may be briefly summarized as follows: That the self-activity and free expression of the child should be a dominant aim of drawing; that from the kindergarten thru all grades of lower and higher schools, and even in the university, drawing should be a factor, and that the cultivation of taste should be sought; that correlation should be established between drawing and other studies, and that teachers should be carefully trained in this branch.

At the close of the conference an American committee, consisting of Messrs. James Hall of New York, Charles M. Carter of Denver, and William Woodard of New Orleans, was appointed to arrange for the proper representation of the United States at the conference of 1908.

It is safe to predict that the next International Conference

of Drawing, to be held in London in 1908, will be larger and more representative than the last, and will present evidence that the best interests of the child have been largely advanced. Will it not occur to American educators that they owe it to themselves and to the cause of education in the world to cheerfully participate in organizing other International Conferences of Education so that everywhere, by comparison and criticism, the good may be increased and the bad eliminated? As education is a basal principle in national life, and as it is in the schools of the world more than anywhere else that people are uplifted and their higher life conserved, so it may be assumed that, in future, educational conferences of men of different lands will do much to develop common aims respecting the moral and social advancement of the world, thus paving the way to universal peace.

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IX

REVIEWS

Some fiscal aspects of public education in American cities (Teachers college record, November, 1905)—By EDWARD C. ELLIOTT. New York: The Columbia University Press, 1905. 30c.

This contribution is a pamphlet of one hundred pages, exclusive of the Table of Contents of more than three pages. Of the hundred pages, sixteen are solid statistical matter from the Government Bulletins of 1900, 1901 and 1902. There are also about eighteen pages of Frequency, Percentile and Variability Tables, and a few other small tables that the non-statistical reader can readily understand,—interspersed throughout the main text. Consequently, one-third may be set down as statistical, and two-thirds as explanations and discussions.

This investigation is the third report that has appeared during the year of 1905, and it covers, in some respects, a different field from the two issued under the direction and by the authority of the National Council of Education. It is not nearly so formidable and unhandleable as the voluminous and detailed report by President Carroll D. Wright upon "Salaries, tenure, and pensions," but it is far better arranged and the information is more easily got at, tho in places the discussions, instead of being straightforward statements of commonplace facts, show strong evidences of learned and technical pedantry. This accusation cannot lie against the great statistical report prepared by President Wright, who apparently gives in his minute tabulations as much weight to very small facts as to very large ones. A statistical report to be of the highest value to the average reader should show what the figures stand for and in what direction they point, because statistics can never represent or explain causes, but they indicate generally, if interpreted correctly, what causes have produced. Too often such tables, for specific purposes, reminds one forcibly and pertinently of the "proverbial needle in the haystack."

There are, broadly speaking, two kinds of statisticians, the one—and the more common—who revels in all sorts of figures and percentage facts, the omnivorous gatherer of data, who tumbles out undigested columns and pages of figures full of meaningless obscurities, and if the reader of ordinary intelligence wants to get information from such a heap, he must first pick out, arrange, classify, and then draw inferences, if possible, or turn from them as from puzzles that cannot be unraveled except by the tabulator. At Washington City, especially, this method of preparing statistical tables has taken a bulldog hold, and there are no indications in recent publications that the present obscure methods will be changed so as to make the reports really valuable, except those from the Consular Service. The other order of mind is found at the other extreme. It is a mind of a different mold and order of thinking. It is the mind that is the master of statistics, and it is not overwhelmed by the curse of details. Dr. Harris represents that kind of mind—the mind that can tell what such facts mean.

There are intermediate stages between these two extreme orders, but each has its place in a scheme of investigation and presentation. The first goes out scooping up all kinds of rubbish relevant and irrelevant, but it is no judge of the value of the material collected, albeit the gathering may be in the name of scientific induction. Such are diligent in their work as collectors; when that is said, the end is reached.

Mr. Elliott's method lies between the two extremes I have indicated. The Introductory Chapter of seven pages is an excellent presentation of the twofold aspect of education—the scientific and the economic. It will well repay a careful perusal by any one interested in either educational or municipal problems. In emphasizing the importance that attaches to municipal expenditures, the author has given expression to the thought that lies uppermost in every thinking person's mind concerning the basic factor of city, county, state, national and international governments. It is at the bottom of all governmental policies whether of Europe, America or of the Far East. The uppermost thought everywhere is the financial one,—collecting and expending taxes paid by the public to support

institutions whose burdens are constantly growing heavier each year.

To take up a small area of the country and deal with the expenditures of 120 cities, each having a population of more than 8000 inhabitants, was to restrict and narrow the investigation. This particular territory embraced the six New England States and New York. It appears that the financial reports from these cities varied so much that Mr. Elliott threw them aside, and then had recourse to the Labor Reports issued by the Government for data sufficiently homogeneous for his purpose. This fact itself is significant, and it suggests the necessity of a uniform method of arranging and tabulating the receipts and expenditures of cities and towns in this country. Something of this sort was attempted a few years ago by a Committee of City Superintendents for the city schools, but it fell flat, being adopted in only two cities in the United States.

By taking the distributed itemized per cents. of expenditures of cities within the area covered, the author constructed his tables of Frequency and Variability. Putting this matter in a plain form, he was finding out what per cent. of the entire expenditure was consumed by the various departments and subdepartments of each city included in the list. Taking a number of cities and comparing their several appropriations, it would be seen at a glance how each stood with respect to the expenditures of others in the same or different classes. This afforded an opportunity to introduce the new terms—Variability and Frequency, as the opposite, no doubt, of *constant*. These could have been grouped under a more comprehensive term—*Perhaps!* The range or the spread of expenditures under the Frequency Tables and the Graphical Representation of Variability, on pages 30, 32, 33 and 34, is rather confusing, unless one studies out the plan of construction. Instead many will turn from these valuable tables without really knowing what they are used for. The author flew the main track again when he introduced the word "Median" for "average cost," which conveys a much clearer idea. Median is a strictly technical term, and is more frequently employed in physiology, botany and in geometry than elsewhere. Of course, it means the

middle, but one seldom, or never, speaks of the middle of a sum of money or the middle of a series of expenditures.

It is rather to be regretted that Pearson's Coefficient, which in some way is made to do considerable duty as an agency, was lugged into a discussion when it was unnecessary either to elucidate the subject-matter or to assist in making plain what was almost self-evident. If there is found a mean average value for the expenditure of the same department, in a number of cities, then it is a very simple matter to compare each of the same kind with it. Beginning with page 56 and continuing to Table No. 16, page 81, is the most unintelligible portion for the ordinary reader. The author leveled his gun entirely too high except for the expert.

Table No. 17, page 82, is an exceedingly valuable one for comparative purposes. The mean average value for each item that goes into the municipal budget is given in the first column reading across the page, and each item of expenditure of the seventy-eight different cities can be compared with the equated value. Municipalities need to be furnished with a standard, or a set of equations, which will show about what per cent. of the public revenue should be appropriated to each department annually to secure efficient public service, and to prevent waste or parsimony. This is one of the special problems that the Committee on Taxation as Related to Public Education emphasized, and Mr. Elliott gives it a wider sweep.

As a whole, the report is an exceedingly suggestive one. It bears evidence of a vast amount of labor on tables profitable, and on others again that lead nowhere. It should be bound up in a volume with President Wright's Report on Salaries, Tenure and Pensions, and with the Report of the Committee as Related to Public Education and thus preserved in permanent form.

Mr. Elliott deserves the very highest credit for the painstaking faithfulness with which he has carried forward his investigations, and the significant interpretations he has given to the statistical tables published by the Government.

J. M. GREENWOOD

The elements of rhetoric and composition—By ASHLEY H. THORNDIKE, Ph. D., Professor of English Literature in Northwestern University. New York: The Century Company, 1905. P. x+340. Appendix on punctuation. Price, \$1.00 *net*.

The external clearness of this book, in open page, large type, and plain headings, reflects an unusual clearness of treatment. The plan is practically inductive and simple. To these qualities scientific division has been consistently subordinated. The obstacles to bringing all four kinds of composition into a single scheme have been surmounted very skillfully. Chief among these, of course, is the difference between the progressive plan to be inculcated for exposition and that other progressive plan which is proper to narration. A narrative paragraph has no such unity as an expository paragraph because it is not a logical stage. And the attempt to handle indiscriminately as paragraphs all groups for any reason spaced off sends boys and girls to college with notions of the paragraph that are at once mechanical and vague. But Professor Thorndike has managed to distinguish the kinds without complicating the treatment. Tho some sacrifice is involved in subordinating or frankly suppressing all cross-divisions and all minor categories, the gain in simplicity commends itself as a practical solution. A high-school rhetoric should be measured, not by its theoretical comprehensiveness, but by its practical efficiency. The approach to a subject, the development of paragraphs, the plan and development of longer themes, the management of sentences, vocabulary, usage,—this is the single line. It is a very effective presentation that thus brings the necessary topics of theory into the order of actual teaching.

What might otherwise be regarded as faults of detail should therefore be viewed in relation to the plan of the whole. The title of Chapter XII, "The division of the theme into paragraphs," taken by itself might seem antiquated and misleading; but, since four earlier chapters have presented the paragraph soundly and clearly as a logical unit, the pupil will hardly have failed to comprehend that a theme is divided into paragraphs only in the sense of being developed by paragraphs. Again, the outlines, in this chapter, of narrative passages from Macaulay and Stevenson may seem to direct too much attention to that sequence which is merely chronological; but the

simplicity of including different kinds of sequence in one general conception has been guarded by the earlier chapters on the paragraph from misapplication. The details of the book justify themselves by fitting into a practical plan.

And the parts that might arouse question if detached from their places are very few in comparison with those that instantly appeal to a teacher. That the book has been worked out by an active teacher for actual students is evident in the exercises, prospective as well as retrospective, in the linking summaries and the apt examples,—in short, in the reality of the whole apparatus. For this is not merely one more acceptable school rhetoric; it deserves to stand out.

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X

NOTES AND NEWS

Illiteracy in the State of New York

Commissioner Draper has issued a pamphlet on illiteracy in the State of New York which reveals some facts that are new and many that are startling. To begin with, New York has not reduced the percentage of her illiteracy in the last thirty years, tho in the country as a whole that percentage has been very much reduced. The figures for New York are 7.1 per cent. in 1870, excluding illiterates under ten years of age, and 5.5 per cent. in 1880, 1890 and 1900. The figures for the whole country are 20 per cent. in 1870, 17 per cent. in 1880, 13.3 per cent. in 1890 and 10.7 per cent. in 1900. A most discouraging fact is that the percentage of foreign born white illiterates has not changed very much either in the state or in the nation in 40 years.

The worst spot in the state, and one of the worst in the United States, is to be found in the Adirondack region. The counties of Essex, St. Lawrence, Franklin and Clinton have 71, 72, 146 and 179 illiterates per 1000, respectively. Of the voting population of these four counties the percentage of illiterates is 10, 10, 11 and 24, respectively. There are a dozen strictly rural counties in which the population of illiterates is greater than in the counties which constitute New York City.

Moreover, it would appear that the foreign born appreciate the privileges offered by the public schools more highly than do the native born; for the percentage of illiterates born in this country of foreign born parents (5.7 per cent.) is only about one-half the percentage (9.2 per cent.) of illiterate children of native born parents. These illiterate children of native born parents are almost all in the rural counties. The borough of Manhattan in the City of New York has a lower percentage of these than any other county in the state.

Commissioner Draper takes justifiable satisfaction in point-

ing out that notwithstanding its great port of entry and its widely exposed and attractive northern frontier, the percentage of illiteracy in New York is less than in eighteen other states, including every one of the New England States but Maine, which ranks next above New York. The Commissioner adds:

"The data for determining our relative standing in this matter with that of the best educated foreign nations are lacking, but such as we have are more illuminating than comforting. The Imperial Bureau of Statistics, Berlin, informs us that of all the recruits in the army in 1903 for the whole German Empire, but 1 in 2500 was illiterate, and in more than half of the states or provinces there was no illiterate at all. In Denmark it was but 1 in 500, in Sweden and Norway 1 in 1250, in Switzerland 1 in 166, in the Netherlands 1 in 40, in France 1 in 16. In England and Scotland in 1902, 1 man and 1 woman in about 80 were unable to sign the certificate when married, the illiterate women slightly outnumbering the illiterate men. The fairest comparison we can make with these figures is by using our census statistics concerning voters, i. e., men 21 years of age and older. We have about 1 illiterate in 9 voters in the United States, and 1 in 18 in the State of New York.

"Altho these figures are from as reliable official sources as are open to us, it is quite possible that the comparison may not be in all regards just, but it clearly shows that we are far behind the leading nations of Europe in the uniformity of ability to read and write. The fact is that those nations undertake to do a little for all of their children and come pretty near doing it: we offer everything in the way of instruction for all of our children and do not come so near requiring them to do anything. The great nations which rival us in intellectual progress and in industrial productivity compel all to take advantage of the schools, and the habit of going to school is inbred and universal: we are loath to compel, and indifference about school attendance is altogether too common an American evil.

"New York may have the brunt of this difficult problem in the United States, but she has no right to make excuses or whimper about it. Her security, the logic of her commercial

and industrial situation, and the honor of her position among the states, demand that she meet it completely.

"The laws of this state relating to school attendance and child labor are consistent, and taken together they are very complete, the product of very commendable legislative courage. They provide that a child must be in school until he is 14 years old, and then for two years he must be in school if he is not at work. The difficulty is that when the enforcement of the law is attempted it develops that public sentiment, upon which all official process rests, is too often weak, and accordingly officials who are charged with the execution of the laws are too often unintelligent and indifferent."

**All-Year
School Sessions**

The school board of Bluffton, Indiana, call public attention to the fact that the public schools of that town are in session approximately four terms of three school months each. Individual pupils are not permitted to attend school longer than nine months in any one school year. The schools are closed for four weeks during the month of August, and every child must select one of the four school terms for an additional vacation of three months.

The reasons for this policy are stated to be:

1. Many children are unavoidably absent during the regular nine months of school and have been receiving only three, or six, months' school during the year.

2. Many of the older pupils can secure profitable employment during the fall or spring terms and they should take their vacation when they can secure such employment.

3. During the winter term many small children are very irregular in attendance because of the bad weather, contagious diseases, bad colds. The average schoolroom crowded with children, unevenly heated and poorly ventilated at this season of the year, does not provide the conditions necessary for good school work. The short, cloudy and dark days make the proper lighting of the schoolrooms a difficult problem, and the children are shut up in the schools almost the entire sunlight part of the day. The summer term presents quite a contrast. With windows wide open, and an abundance of out-

door play at school and at home the sanitary conditions are certainly much better.

4. If one-fourth of the pupils should take a vacation each term, the schools can accommodate under present conditions one-third more pupils. The efficiency of the school plant is increased one-third by the simple plan of using it one-third longer each year. This means the equivalent of a new seven-room grade school building, which with janitor service, heating, interest on investment, repairs, depreciation of plant, equipment, will be a saving of \$4000 to \$5000 each year. It also means that whenever it may be necessary to build a new school building that twelve rooms will be the equivalent of sixteen.

5. The cost of instruction will not be changed. With the same number of pupils per teacher and giving each nine months' school the cost for teachers is the same whether they are taught together for nine months, or only three-fourths of them together for twelve months.

The greatest deficiency of the schools is the inability to secure and keep good teachers. The monthly salary is not so low, but the yearly income is so small that teaching is only a stepping stone to other employment. The only real solution to the question of adequate compensation for teachers is to be found in continuous employment as in other occupations and professions. Without any increased expenditure on the part of the school corporation the board will be able to increase the yearly salaries of our teachers one-third.

The classes in the common schools are three school months apart in their work. For several years pupils who are either too strong or too weak for their classes have been changed at the end of any school month so as to keep each pupil working with the class where he is able to do the most for himself. This has broken up the rigid school machinery whereby all pupils are held together in a "lock step," marking time thru the course of study regardless of their varying abilities and conditions. This classification now permits pupils to drop out of school at any time for three continuous school months and then return and take up their work where they left it.

EDUCATIONAL REVIEW

APRIL, 1906

I

TO WHAT EXTENT SHOULD PROFESSORS ENGAGED IN RESEARCH BE RELIEVED FROM THE WORK OF INSTRUCTION? ¹

Every good American university has among its professors men of two classes: some whom it values for their ability in teaching old truth, and others whom it values for their ability in bringing out new truth. Men of the former type are commonly said to be engaged in instruction; men of the latter type are commonly said to be engaged in research. These names are somewhat misleading, but they are so current that we cannot avoid using them. Our recitation rooms and lecture halls are in charge of men of the former class. Our laboratories, our museums, and our observatories are supposed to be in charge of men of the latter class. It is hard to say just how large the two groups are numerically, or how far the men of the second group are actually relieved from classroom teaching in our different universities. The lines of demarcation are so shadowy that no statistical inquiry on these points is possible. Nor is such an inquiry necessary for the purpose in hand. The question before us is, not whether we have enough research or enough instruction, but whether we shall gain or lose by an attempt to separate the two more fully than we do at present.

On this question I am prepared to take strong ground in

¹ A paper read before the Association of American Universities at San Francisco, California, March 15, 1906.

favor of the negative. We do not want the two things separated, we want them combined.

The men who are engaged in the development of new truth should be impressed with the fact that it is their duty to *teach* this truth, as well as to discover it. They should understand that research without instruction is as valueless as faith without works. They should feel that they are relieved from classroom duties, not because their work of discovery is something sacred and precious in itself, but because they can teach the kind of truth which they are developing better thru publications and collections and in the form of conversations with advanced students than thru the conventional medium of lecture or recitation. If you tell a man that he is set apart from others in a "research professorship," you encourage him to ignore these teaching duties. You seem to separate his services from those of his colleagues—to value their work for what they give to others and to value his for what it is in itself. There are few men whose character is strong enough to stand the strain which is placed upon them by such a position. It is specially dangerous to men who, having the possibilities of genius, are also subject to its infirmities.

Meantime, the men who are engaged in teaching old truth to college classes should be impressed with the fact that their teaching will be tenfold better if they can *investigate*, as well as teach. If their instruction is based upon research, it will be vital; if their instruction is not based upon research, it will be stale. Under pressure of financial necessity we may, at times, use too much of their strength in the actual work of the classroom; but we should guard ourselves against any educational terminology or educational theory which will countenance the belief that this is a proper policy. No matter how old the subjects which he teaches, we do grave injustice both to an instructor and to his classes, if we utilize him as an instructor alone. Whether he accepts this limitation of his activity as something which he cannot help, or chafes and frets under it as an unjust deprivation, the result is in either case disastrous to the man and to the university that employs him. Between the man who is satisfied because he is second-rate and

the man who is dissatisfied because he is not first-rate there is little to choose. Neither of them represents the kind of teacher we want.

We are not dealing with an ordinary case of division of labor. The great argument for division of labor is that it makes each man more expert in his own field of work by allowing him to concentrate his attention on that field alone, instead of extending it over others. But the college professor who is relieved of the duty of research in order that he may give his whole time to instruction becomes a worse instructor instead of a better one; and he who is relieved of the duty of instruction in order that he may give his whole time to research is, to say the least, liable to the same danger.

But this loss of individual power on the part of the professors is not the only evil to which the creation of a separate class of research professors exposes us. The existence of such a class may become a menace to the general spirit of co-operation and efficiency which is so essential not only to good teaching, but to scientific progress. In selecting such men for special liberty, we may unconsciously restrict that general liberty of thought and teaching which every good university ought to promote. The men thus selected are under strong temptation to care too much for their own ideas and too little for giving stimulus to the ideas of others. They will unconsciously subordinate the laboratories and collections of the university to their own purposes until these laboratories and collections are inadequately used. They will unconsciously stand in the way of younger men who wish to develop researches of their own, because they think that they themselves are appointed to do the research work and that the younger men are hired to act as their helpers. We all remember the conversation which Admiral Dewey is represented by the humorist as having held with Hobson when the latter went out to Manila. "Who are you?" "I'm a hero." "We don't want any such out here; I do all the hero business in Manila." I do not mean that every professor engaged in research is of the type here satirized. There are many investigators who are singularly helpful to their subordinates and who are quite as much interested in

promoting the researches of these subordinates as they are in developing their own. But when we go over the list of these men it will be found that they are just the ones who have the teaching instinct; the ones who are most ready to combine instruction with research; the ones who would most earnestly repudiate the suggestion that the investigators formed a separate class from the teachers, and a higher one. They are the men who are looking, not only for new results, but for new men to produce the results.

As John Morley well says, the essential thing for progress is to leave all ways open for the advent of your hero, for no man can possibly know by which road he will come; and this is as true in the affairs of science as it is in the affairs of government. Every university, as soon as it has money enough to pay men for anything besides classroom work, should see that the opportunities for research are developed as widely as possible among its teaching force. Some will use these opportunities badly; a much larger number will use them well. The aggregate result of such a policy will, I am confident, be profitable to the students and to the teaching force; profitable to the reputation of the university and to the progress of science as a whole. Every instructor who is devoting his time and strength to university work should have the opportunity to give at least one course on a department of his subject for which he really cares—a course which he gives not because the university needs that particular subject or branch of the subject in its schedule, but because he himself wants to study and teach it and believes that he can make something more out of it than others have done before him. In connection with such courses the younger instructors should be given every facility to use the research laboratories in the way that *they* think they ought to be used, rather than in the way the head of the department thinks they ought to be used. I do not mean that we should go so far as to introduce the German system of *docenten*. The arrangements of our classes and the demands upon our teaching force are such that a radical change of this kind seems impossible. But it is perfectly possible and exceed-

ingly important to give our younger instructors some of the advantages which the German system affords.

Of course this will not be an easy thing to attain. There are financial obstacles, and there are also administrative ones. The number of students to be taught in the regular classes is so great that faculty committees will want to use the whole time of the younger instructors for regular work, and will begrudge every hour that is spent in methods which they regard as irregular. The laboratory space is so limited in proportion to the demands upon it that the heads of departments will be inclined to use it all for the researches in which they have confidence, and will doubt the wisdom of putting any part of this limited space under the control of younger men whose work is avowedly experimental, and of whose good judgment the older men are not sanguine. But it is worth while to spend the effort necessary to overcome these obstacles. The real freedom of teaching which exists in a place managed for the young men and not for the old ones makes it far more attractive to progressive and ambitious students. The reduction in quantity of classroom work on the part of the younger instructors is more than compensated by the improvement in quality. The gain from the successful experiments more than compensates the loss from the unsuccessful ones. The existence of a spirit of independent research on the part of a large body of young men makes such a university a better place in which to teach and study than one where a few men of more advanced years, and perhaps more cautious temperament, are engaged in carrying out their own preconceived ideas. Over and over again it has been proved that an atmosphere of independent thought and independent discussion counts for more in stimulating discovery than perfection of instruments or scholarly guidance by those who have already made their reputation. Look back at the history of scientific investigation, and you will find it most active, not where large sums of money are placed in the hands of a few men to facilitate their individual researches, but where those sums, or even very much smaller ones, are distributed among a considerable body of young men working side by side in independent activity.

Some universities will find it relatively easy to give the younger instructors freedom necessary for making discoveries and experiments of their own, and others will find it very difficult; for some have money to spend upon research and others have little. But I am convinced that whether the sum thus available be one thousand dollars, or ten thousand, or a hundred thousand, it is best used by distributing as widely as possible the opportunities which it gives and the chance of using those opportunities in the manner that each man may desire for himself.

But the younger instructors are not the only ones who need more freedom. The older ones also have their burdens, tho of a somewhat different kind. The pressure of routine often lies as heavy upon the experienced man as the pressure of authority lies upon the man who has his career before him; and the better a man teaches, the more his routine duties crowd upon him as he gets older. It is the duty of the university authorities to relieve this pressure. It is suicidal for them to allow a successful instructor to be swamped by the number of students who wish to hear him. He should be given increased time for research, by the diminution of his lecture hours where that is possible, and in any event by the appointment of readers, quiz masters, demonstrators, and other assistants who can relieve him of burdensome parts of his work. It is not necessary that the services of these men should be very expensive. In a university which has a large force of graduate students there are always men on fellowships who can be asked to do this, or men without fellowships who are willing to do it for comparatively small compensation. If a fellow refuses to give this help, holding that he is employed for research and that his time is too valuable for such work, the remedy is simple. Send him away from the university. The more promptly you get rid of him the better. A vigorous policy of this kind is necessary in order to prevent men who have proved their capacity to teach from being overburdened with teaching duties and placed at an actual disadvantage as compared with those who do not teach so well. I have a case in mind where there are two men working side by side in the same subject,

one of whom can teach classes and the other cannot. Under the financial limitations of the department the man who can teach classes has to spend all his time in this way, while the man who cannot teach classes is given time for research; and the man who is thus turned into research because he cannot teach believes that this fact is a badge of superiority instead of inferiority. By giving liberal assistance to our teachers, and by that policy only, can we protect the men who are able to study and to instruct also from the encroachments of those who, being unable to instruct, claim superior facilities for study.

Do not let me be misunderstood in all this. I recognize that there is a great deal of teaching, and of very valuable teaching, which is not done in the classroom and which does not take the form of lectures, of recitations, or even of laboratory supervision. There are some men who naturally teach in these ways; there are others who more naturally teach by their writings, by their conversations, or by their intelligent suggestions for the work of others. These latter forms of teaching are as important as any; and a man who can make his researches available in these ways is as useful an instructor as anyone in the university. A failure to recognize this fact has prevented some of the best men from finding the employment or receiving the salaries which their real work as teachers merited. Those who have seen the value of these men in a university, and have not seen how much teaching they could do outside of the classroom, have supposed that the only way in which to pay them full salaries was to make them "research" professors. Pay them full salaries, by all means; but pay them for their teaching. Let them understand that they are part of the teaching force, and are simply doing their teaching in a different way from some other men. Let them understand that they are not employed for research as distinct from instruction, but for the development and teaching of new truth as distinct from the development and teaching of old truth. Let them see that they are not set apart from their colleagues to be guarded and perhaps sterilized. Let them feel that their research is not valuable until it is made useful to others. Let them understand that withdrawal from the lecture room and

relief from the duties of supervising elementary students carry with them a larger obligation to publish as fully as possible the results of all discoveries; to organize departments intelligently; to train up young men who can teach; and to make liberal room for such men, instead of trying to get in their way when their work becomes popular.

Impress upon the research men an obligation to teach others, and demand that they give evidence that they are meeting that obligation. Free the best teachers from the unnecessary burdens due to their popularity, and insist that they shall avail themselves of the chance thus afforded to make researches of their own. Give to our younger men, who have still to prove what they can do both in teaching and in research, the widest opportunity for independent investigation and independent management of their classes. Thus, and thus only, can we avoid the dangers to which we are exposed at the hands of those who would separate research from instruction.

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II

THE REACTION OF GRADUATE WORK ON THE OTHER WORK OF THE UNIVERSITY¹

A fundamental difficulty in the discussion of this topic lies, of course, in the absence of fixed conditions, and of anything but a varying terminology to describe them. The term "university" is altogether a shifting concept, even when it is legitimately applied to those institutions which, like the members of this Association and others in the community, do actual university work. The relationship of the college to the university in America, is still, and perhaps always will be, wholly indeterminate except as a general proposition, for those of us—and they are a majority of the whole—who, in the evolution of a system of the higher education have developed the newer university by accretion about the nucleus of the older college, under the dictates of expediency as determined by environment, have perforce evolved the former and retained the latter in positions widely divergent. In some few of our American institutions, university work from the beginning has developed synchronously with the work of the college. In one case at least the general condition of development has been reversed and the college at a subsequent time has been added to the university.

The relation of graduate work to the other work of the composite American university is dependent upon the place which it relatively occupies with regard to the whole: whether, on the one hand, it is a side issue, an accidental growth that has been allowed to develop without far-reaching thought, either of its own perfect fruition, or of its ultimate effect upon the parent stem; or whether, on the other hand, it has been recognizably an articulated part of the whole, a scion carefully

¹ A paper read before the Association of American Universities at San Francisco, California, March 15, 1906.

set, not only to develop itself thru its coherence with the earlier stock, but with a thought to infuse the latter with more energetic life as the result of its presence. Both of these conditions have existed in the development of graduate instruction in America. In some cases, to use another figure, graduate work has seemed to have been viewed very much as a by-product that has appeared in the process of more extended educational production, natural, doubtless, to the time and place, but to a certain extent unwelcome and embarrassing. In these instances, for reasons that have varied with the fundamental conditions present, it has been accepted with toleration and has ever been allowed to increase, but it has not been conspicuously encouraged. In some of our institutions, partly as a consequence of such an attitude toward it, graduate work still concessively occupies a relatively small and insignificant place in the program of studies, with the necessary accompaniment of a small body of instructors to direct such work and a small body of students to pursue it.

In others of our institutions, however, graduate work even in its beginnings has been recognized in its true aspect as a significant sign of the times, as the inevitable concomitant of more enlightened cultural conditions in the community, and these institutions have not only readily accepted it as part of an order changing, but by every means in their power have furthered it as a welcome expansion of educational opportunity. These institutions, by their attitude of approval, have given to graduate work an undoubted prestige in their body politic. With the development of the work that in many cases has naturally and logically resulted, there has been a necessary increase in the corps of instruction, and students have been attracted thru the advantages offered by the better equipment.

The relation of graduate work to the other work of a given institution and the consequent reaction that will be exerted by the one upon the other will depend upon the conditions enumerated and others coexistent with them. It will depend upon the place which each has been accorded in the whole, and it will depend upon the attitude which the two have ultimately acquired in relation to each other. It will depend upon whether

the one is rigidly superimposed upon the other, as is the case in some institutions, or whether the two are carefully articulated, as is the case in others. It will depend upon the relative amount of graduate work actually accomplished; upon the size of the body of instructors who conduct it in relation to the entire corps of instruction in the university, and upon the number of students who pursue it in relation to the entire student body. It will depend, too, to no small extent, upon the constitution of the body of graduate students; upon whether its members are sordid and self-seeking, and, consequently, in a measure aloof, as we have been told in some cases they are, or whether, as in other cases they appear to be, they are a sympathetic and patriotic part of the whole, who, even more than the rest, because of a maturer and better appreciation of opportunities and purpose, are eagerly and enthusiastically bent upon enkindling their torches with the common fire.

At Columbia University the conditions of relationship between graduate and undergraduate work have been in action long enough to permit, along definite lines, a fairly accurate estimate of results in this particular environment. The amount, too, of graduate work, from the standpoint of the number of courses of instruction given, the size of the body of instructors giving them and the student body taking them, is relatively so large and important that an influence is inevitably at hand, if at all, and should plainly be discernible.

Historically, the development at Columbia has been the gradual growth of graduate work about the pre-existent and coexisting college. There has been at no time a forcible expansion of such work, and except in a single case of the gift of an endowment for the specific purpose of teaching a remote, but important, subject—the Chinese language and literature—it has only been supplied because it has been demanded by intending students. The demand for graduate instruction has naturally arisen and the provision of increased opportunity for it has paved the way for more.

Graduate work at Columbia is intimately articulated with undergraduate work along lines that are constantly broadening. In the academic year 1904-05, to cite the last complete statistics

at hand, in a net total of 4981 students in the whole corporation inclusive of students in the Summer Session of 1904, but not of students in extension courses, there were enrolled under the three non-professional graduate faculties, Philosophy, Political Science, and Pure Science—the *Philosophische Fakultät* of the German universities—782 students, a great majority of whom were candidates for the degree of Master of Arts or Doctor of Philosophy, or both. These were students who, to quote a late presidential report, were “devoting themselves to pure scholarship and methods of investigation, with no professional end in view, unless it be teaching or public service in some capacity.” This total of 782, however, does not include 136 college graduates studying under the professional faculties of law, medicine, and applied science, who are also candidates for the degree of A. M. or Ph. D.²

The three faculties enumerated are *per se*, and in the sense of this paper, the graduate schools of the University, although since 1903 the Law School has also been a graduate school. Graduate students as candidates for the professional degrees are also widely distributed thruout the University. This same year, 45 per cent. of the enrollment in the Medical School, 14.8 per cent. of that in Fine Arts, and 13 per cent. of that in the Schools of Applied Science, were made up of the holders of degrees. There were actually in residence during this year under the corporation proper 1378 students who had already been graduated from a college or scientific school, or a European institution of equal rank, or 47 per cent. of the entire body.

The total number of students enrolled under the corporation proper in 1904-05 was 2935; of these 782, as has been stated, or 26.6 per cent. of the whole, 559 of them men and 223 women, were the students doing the actual graduate work of the University under its non-professional faculties. The degrees or their equivalents already held by these students were widely distributed, in that 219 different institutions, 176 domestic, and 43 foreign, were represented by their graduates.

For us, at Columbia, the development of the graduate work of the university has meant the development of the college-

² Columbia University, Annual reports, 1905, p. 203.

It has brought with it a notable expansion of the program of study in which the undergraduate student has been fully allowed to share; it has furnished him with a stimulus and an added incentive; it has widened his horizon by his contact with students of a superior culture and a broader outlook; and it has in very many cases induced him to pursue further a predilection which the ordinary opportunities of the college curriculum would never have brought into existence.

The influence of graduate work upon undergraduate work is most directly and unequivocally exerted at Columbia in those courses of instruction which, altho primarily graduate, under the arrangement of the program of study are open alike to graduates and to properly qualified undergraduates, from the nature of the case, regularly and usually members of the two upper classes of the college. There are offered in this way during the present academic year, under 195 individual instructors, no less than 300 courses, open both to graduates and as electives to such undergraduates as are qualified to pursue them. Under the conditions that prevail at Columbia the influence that is exerted in these courses is only in the rarest instances reciprocal. In the great majority of cases, and overwhelmingly, it is exerted from above downward. It is the graduate work which *gives*, and the undergraduate work which, as inevitably, *takes* as a result of the contact.

The opening of courses primarily graduate to undergraduate students and wholly apart from the fact as to whether the undergraduate is in a large number or a small number in such courses, is to elevate the character of the instruction. The effect upon the undergraduate student of the presence of graduate students in these courses—some of which, with the development of the college curriculum, must still have been offered as electives in the absence of the graduate instruction—is to stimulate him to increased effort by bringing him into intimate contact, in the classroom and outside of it, with fellow students who, in the main, are maturer and of greater experience, and who are characteristically far more serious and eager in the pursuit of knowledge—of setting him, in short, a pace which he would not always have taken of his own initiative. The

effect upon the instructor in such courses is to put him on his mettle and to induce him to give out his best, for he is conscious that his composite public is already possessed of a wider standard of judgment than is possible to the undergraduates of the home institution who have felt only home influence.

The presence of graduate work elevates the whole tone of instruction in the institution—in any institution—by making it imperatively necessary to have in the corps of instruction of the university, not merely the teacher who teaches, but much more largely than is either possible or useful in the college the teacher who also investigates. And in just this way it widens the opportunity of the undergraduate student by giving him, in addition to the instruction which under the conditions of the college curriculum is of necessity first of all an exposition of accumulated knowledge, more surely than before a premonition, at least, of the spirit and method of investigation which, thru its own discoveries, is adding to the ultimate total of knowledge. It has not only increased in quantity and intensified in quality the work performed by the undergraduate student, but by this demonstration of the meaning of receptive scholarship on the one hand, and of productive scholarship, on the other, it has immeasurably broadened his horizon and pointed out a way for future usefulness.

The students of the non-professional graduate faculties who are pursuing their chosen lines of advanced study and investigation and the teachers who, in directing them, are continually breaking new ground, "represent," as President Butler writes in the annual report of 1903, "the very heart of the University." "In the Schools of Philosophy, Political Science, and Pure Science," he continues, "students and teachers are associated together in pushing forward the boundaries of human knowledge and in increasing the measure of human appreciation in some way, great or small. It is this spirit of investigation, of the scholarship which produces and not merely relates, that gives to these schools their tone, and to the university as a whole its best inspiration."

WILLIAM H. CARPENTER

III

METHODS OF TEACHING ARITHMETIC¹

As far back as October, 1892, I advocated in the *EDUCATIONAL REVIEW* (IV: 277-286), a system of implanting elementary mathematical ideas in the minds of pupils, with especial reference to the fundamental conceptions of number and quantity. While eminent masters in education had repeatedly pointed out the advantages to be gained by teaching arithmetic in a concrete form, their views had not up to that time taken effective practical form, at least in our own country. The purpose of my paper was to set forth a system of visible and graphical representation of arithmetical operations, illustrated by appropriate exercises, by which the advantage of apprehending mathematical ideas in a concrete form should be gained. I am not aware that this utterance excited any attention at the time, nor do I know whether it was a factor in the recent tendency of arithmetical teaching in the direction which it advocated. However this may be, the whole trend of recent experience and discussion among practical teachers is in the direction of the ideas advocated in the paper referred to; and a system practically identical with the one there found is now embodied in several recent arithmetics, even to the extent of proposing problems and exercises almost identical with those suggested in the paper. This fact encourages me to present a more complete development of the results of thought and observation during the thirteen years which have elapsed since my former utterance. To do this completely it is necessary to commence at the foundation and inquire into the main purposes which we should have in view in arithmetical teaching.

Without going into details, a very little thought will, I think, make it clear that the main end of mathematical teaching—we

¹ Read before the Department of Superintendence of the National Educational Association at Louisville, Ky., February 28, 1906.

might say of teaching generally—is to store the mind with clear conceptions of things and their relations. In the case of elementary arithmetic, the things we first deal with are numbers. It follows that a clear conception of numbers and their relations is the end toward which our teaching should be directed. I think every reader who has carefully studied the mind of the apparently dull pupil will agree that the real difficulty is to give him an insight into the nature of the problem he is to solve. He may be able to repeat the words; but you find that they do not make a sufficiently definite impression on his mind. Clear and accurate conceptions of the relations of numbers are therefore to be generated.

To show what we mean by clear conceptions of number, we must stray into the field of psychology. We may conceive of the brain of a man as a microcosm containing within its narrow limits all that the individual knows of the structure, laws, and history of the entire universe. There are two universes, the microcosm within us and the macrocosm without us. The success of the individual, not only in all the applications of science, but in every branch of endeavour, depends on the accuracy and completeness with which the processes at play in the subject with which he is dealing are represented by corresponding processes in his own mind.

Admitting that everything known of external nature has its image in the mind of the man who knows it, I cannot but regard it as a defect in psychological nomenclature that there is no one general term used to express this mental image of an external object and nothing else. Passing over the question of nomenclature, let me make clear the thought. To take a familiar example, we all have an idea of the house in which we live. We can think of the building and the arrangement of its rooms, when it is out of sight, as if we had a picture of it in our mind's eye. This picture is not a flat plan, but rather a model embodying the arrangement of all the rooms in the house. What is true of the house is true of all human knowledge and of its applications. The engineer can in his mind erect bridges in which the actions of stress and strain shall correspond to those in the actual bridge; in the mind of the

historian, events of human history and the motives which guided them may be repeated at any moment; in the mind of the chemist, compounds react as in the laboratory, and so on thru every branch of knowledge.

From this point of view my main contention is that the first and great object in training the growing child in arithmetic is to store his mind with clear and accurate conceptions of numbers, magnitudes, and their mutual relations, which he shall be able to apply with readiness in any actual case that may arise. That I have elaborated this point so fully is due to the fact that it should never be allowed to drop out of sight in our teaching. The latter must be arranged from the beginning with this great end in view.

Granting this, the next question in order is that of method. Here psychology can supply us with a guiding rule. However abstract may be the ideas which we wish to implant, they must originate in sensible objects. But they must not stop there, because generalization, conscious or unconscious, is to be aimed at from the beginning. Let me illustrate my meaning by taking the number 10 as an example. I think psychologists will agree that there is no such thing in the human mind as a conception of the number 10 otherwise than as a quality characterizing 10 distinct objects. A written or verbal symbol may be used for the number, but this is not a conception of it. The point is, that the word or symbol being pronounced or shown, the pupil should at once conceive of 10 objects as distinct from either 9 or 11, and should be able to handle that conception in all the ways that it can be handled.

Here, there is an obvious advantage in selecting such objects as have the least number of qualities to distract the attention from the fundamental idea of number. Hence, I prefer that the counting should be made upon small dots, circles, or other objects with few qualities than upon the more interesting objects which are met with in every-day life. In this suggestion I may seem to run counter to views which are entertained by very high authorities in education. There is, I admit, a very strong argument in favor of the view that the principles of arithmetic are best mastered when the child is taught to

consider them as growing out of the problems that actually confront him in his daily walks. I fully agree that the practice thus suggested is one that should be carried out, but we must not depend wholly upon it. Perhaps I am a little old-fashioned, but I would not abandon the idea of applying the pupil's nose to the grindstone. I have no objection to the grindstone being interesting, and certainly do not wish to make it painful, but I want some drill in thinking of numbers and their relations as dissociated from the actual objects concerned. Just as rapidly as this power is attained in each and every branch, I am willing to see the interesting substituted for the instructive.

The idea of arranging subjects in order and completing one before passing to another is plausible. But experience shows that it has its limitations. The great principle which experience especially enforces is the educational value of frequent reiteration of very short and easy lessons. This is one of the main features of the system I am trying to develop.

Now, as my object is a purely practical one, it is necessary to have some idea, however brief, of the method by which the purpose in view can be most readily attained. The system I advocate may be called *visible arithmetic*. Taking up subjects in much the order of the traditional arithmetic, the first would be Numeration. Visible numeration consists in counting and arranging objects in tens and in powers of ten. At the earliest age where simple arithmetic can be commenced, whether in the kindergarten or the primary class in school, I should teach the child to count and arrange things in tens; then to arrange real or imaginary tens in hundreds, and so on. In accordance with the general principle which I have laid down, I would begin with rows, each comprising ten dots, or kernels of corn, and teach the counting thru ten such rows, making one hundred in all. We could then imagine the results of laying successive 100's in flat layers on top of each other, thus getting the idea of multiples of 100 up to 1000.

It would be psychologically interesting to see whether, in this way, we could plant in the mind what the psychologists call a "number-form" in a better shape than it commonly takes. I suppose we all have vaguely in mind from infancy a certain

arrangement in series of small numbers up to, say, 100. It would be interesting to know whether a more rational arrangement would be gained by this process, but this is not important for teaching purposes.

Next would come the process of adding and subtracting grains of corn, or dots or little o's made on the slate. Methods of doing this are so familiar that I need not dwell upon them. The practice of multiplication and division in this way does not seem to need much exposition. We can repeat a row of any number of dots as often as we please, and count the product. We can divide any number into groups of any smaller number and find the quotient and remainder. All these exercises on the four rules of arithmetic need not take much time. My impression is that you will find, after a very little showing, that the child is able to perform the fundamental rules upon collections of grains of corn, or dots, without devoting much or long continued effort to the process.

The next step would be to extend the operations to continuous quantity as represented by lines and areas on paper or on the blackboard. The addition of lines consists in placing them, or lines equal to them, end to end, thus obtaining a line equal to their sum. Subtraction consists in cutting off from the longer line a length equal to the shorter one. Multiplication by a factor consists in adding together equal lines to a number represented by the factor. Division takes a twofold form. We may either divide a line into a given number of equal parts, thus obtaining a certain length as the quotient, or we may find how many times one line is contained in another, thus obtaining a pure number, or ratio, as the quotient.

Please understand that this system of visible arithmetic is not a substitute for ordinary arithmetic, but an auxiliary to it. Whether it is advisable to master it completely before beginning regular work with figures, or to carry on the two simultaneously, only experience can show.

However this may be, in teaching written arithmetic I would have the pupil make his own addition, subtraction, and multiplication tables, by the aid of countable things. Taking groups of six things—dots or grains of corn—the pupil finds the suc-

cessive products of six by different factors and writes them down in order for himself. He thus knows exactly what the multiplication table means. About using it, I shall presently have more to say. The treatment of fractions in a visible way by dividing lines into parts is an extension of multiplication and division, and does not need development. I therefore pass on to the continuation of the method.

The next subject in order would be Ratio and Proportion. On my plan, the pupil reaches the first conceptions of this subject thru the eye by drawing a pair of lines of unequal length and then other pairs, shorter or longer, in the same ratio to each other. In this way he will see the equality of ratios to be independent of the special lengths of the lines. He can then be gradually exercised in forming for himself an idea of what a ratio means, or how equality of ratios is to be determined by multiplication or division. I would not have measurement with a rule applied, but only eye estimates. This, I may remark, is the general system by which I think we should begin in all cases. The reason for it is that in making eye estimates we depend more completely upon the eye conceptions than when we measure; but as soon as the conception is gained, we may proceed to measurement. Having got the idea of a proportion and the geometric mean, all this can be done without using figures or numbers. When the conception is well implanted, then proceed to numbers.

In connection with proportion would come graphical representation of all the quantities which enter into arithmetical problems. Take, as an example, questions of days' work in plowing a field. We draw a short vertical line to represent a man, or his power. From this line as a base we draw horizontal rectangle to represent the amount of land which the one man can plow in a day of ten hours. If we have several men, we add into one the lines representing them, and combine all the rectangles into one. Then we extend these rectangles to represent the days. To introduce the idea of compound proportion, we suppose a day of eight hours instead of ten hours making a rectangle shorter in proportion. I consider any problem in compound proportion solved when, and only when,

the pupil is able to represent it graphically on this system. I am sure this process would be more interesting than that requiring the use of numbers.

The precise purpose of this course in visible arithmetic is so far from familiar that further enforcement of it may be necessary to its complete apprehension. It must be especially understood that exercises in formal reasoning do not enter into the plan. A power of visualization and giving a concrete embodiment to the abstract ideas are the fundamental points aimed at. If I should express the desire to have a pupil trained from the beginning in the mode of thought of the professed mathematician, I might meet the reply that this was expecting too much of the childish mind. Allow me, therefore, to put the requirement into a slightly different form. I wish the pupil trained from the beginning in the use of those helps to thought which the advanced mathematician finds necessary to his conceptions of the relations of quantities. If a mathematician has no clear conception of an abstract quantity how can we expect a child to have it? The mathematician conceives quantities by geometrical forms and the movements of imaginary visible points. Let us then train the child to represent the simple quantities he deals with by simple auxiliaries of the same kind, adapted to the state of his mind and to his special problems. What I wish him to use is not merely a tool, but a necessary help to thought. The visible arithmetic which I advocate bears the same relation to ordinary arithmetic that the geometric construction of complex variables does to the algebra of the mathematician.

Altho I have spoken of these graphic constructions as merely an auxiliary, I would, after denominate numbers are disposed of, be satisfied with the graphic representation of all solutions required. After this point, I would require very little numerical solution of problems, being satisfied when the pupil is able to construct a graphic representation of the solution. When he can draw proportional lines, explain discount by cutting off and adding fractions of a line to the line itself, and in general show that he can form a clear conception of the practical problems of arithmetic, I should consider that he

knew enough about it, so far as mere numbers are concerned. Everything beyond should be treated by algebraic methods.

Thus far, I have treated only of one main object of arithmetical teaching. But there is another purpose of a different kind, and that is facility in the use of numbers. The pupil must not only know the meaning of multiplication and division, and understand when each is required, but he must be able to cipher rapidly and correctly. My views of the best method of attaining this end are perhaps even more radical than those which I have already set forth. I think it can best be gained by short and frequent daily practice in the routine operations of the four fundamental rules, quite apart from the solution of problems. I would have something analogous to a daily five-minute run in the open air. The reiteration of simple problems after the pupil sees clearly how to conceive them is a waste of time. But this is not so with the exercises designed to secure facility. Leaving details to the teacher, I would outline some such plan as the following:

Let an entire class devote a few minutes every morning to reading or repeating aloud in chorus the addition, subtraction, or multiplication tables until it is ascertained that the large majority of the class has them well by heart. I should not make it a point to have them repeat the tables from memory alone, because I think the result is equally well attained by simply reading aloud. Another exercise would be that of adding columns of figures, following the method of the bank clerk, or of the astronomical computer. It would facilitate this to have the exercises printed on sheets beforehand. Twelve lines of figures would be a good number. The earlier exercises may begin with three in a line; when these are easily done, add columns of thousands, then tens of thousands, and so on. Do the same thing with exercises in multiplication and division. These may seem rather dull exercises, but we can easily add an element of interest by choosing some condiment of which a very little will suffice to flavor an otherwise long and tedious course. The mere act of repeating in chorus will give interest to the exercises. In addition, an element of interest will be given by noting from day to day the gradually diminish-

ing time in which each pupil can complete his exercise and prove its correctness.

Thus far I have spoken only of methods of teaching. But I believe that, if the system which I advocate is intelligently pursued, it will be found practicable to greatly curtail the time spent in simple arithmetic, and thus rearrange the curriculum with the view of disposing of the subject of arithmetic and passing on to algebraic and geometric methods at a much earlier age than at present. In this connection attention may be invited to the report of the Committee of Ten, made in 1892, in which important changes in this direction were proposed. It must be admitted that in making such changes we shall be running counter to the ideas of the general public. When it is proposed to omit commercial and so-called advanced arithmetic from the school course, the reply will be that we are considering only the requirements of pupils preparing for a college course, and that business and commercial arithmetic is a prime necessity with the masses. There being in our country no body of men more influential than that here assembled in wisely directing public opinion on this subject, I beg leave to point out the fallacy in this plausible view. The experience of directors in our great enterprises shows that the best business mathematician is not the one who has taken a course in commercial arithmetic, but who has the best understanding of numbers and quantity in general, obtained by the more advanced courses of a mathematical character. A problem of practical business is best taken up by one who understands it. On the purely practical side that understanding can be better gained in one day by actual experience than by any amount of arithmetic in a course subject to all the drawbacks of being treated as an abstraction.

I once saw an interesting example of this. It was in connection with a building association on an old-fashioned plan, which, I fear, has gone out of vogue. It was a mutual benefit association in which accumulating results of monthly payments thru a term of years were to be equitably divided month by month among the members desiring advances. The mathematical principles involved, if investigated in detail, were so

complex that only a professed mathematician would be able to construct or apprehend their theory. Yet, when the problem was faced as an actual one, the whole process was gone thru with by every-day business men and laborers without the slightest difficulty. Not one of these could have explained the process to a mathematician, but he did it correctly when the concrete case was before him.

We should also try to dispel the current notion that the use of algebraic symbols belongs to a more advanced stage of study than arithmetic. We have advanced a little in the right direction since the time when the signs $+$ and $-$ were considered as belonging only to algebra, and therefore not used in arithmetic. I trust that we shall go further and not only introduce symbolic operations, but the simpler literal symbols at a very elementary stage in the course. Careful examination will show that in its simplest form, algebraic operations are even simpler than arithmetical ones.

Having suggested all these innovations, allow me to sum up in briefest compass the practical conclusions which I draw from a survey of the field:

I. I do not propose that we shall try to train a pupil in abstract mathematical reasoning until he reaches the stage where pure geometry can be advantageously taken up. But, from the very beginning, he should be trained in the faculty of mental insight. This can be done by problems like this, to be answered by thought without making a drawing. Of three houses, A, B, and C, B is 100 meters north of A and C is 100 meters west of B. What is the direction of C from A, and about what would you suppose its distance to be?

II. I regard time spent in the schoolroom poring over problems and trying, perhaps vainly, to see how they are to be solved, as time wasted. Much waste in this way is indeed unavoidable, but our policy should be to reduce it to a minimum by explaining the problem whenever the pupil does not readily see into it for himself.

III. Of course we should train the mind in seeing how to attack a problem. The objection may be made that whenever we help the pupil in this respect, we diminish his power of

helping himself. I admit this to a certain extent, but my solution is that we should devise such problems that the course of thought they require can be seen without spending time in vain efforts. Please let me cite once more the analogy to outdoor exercise. We should all agree that if we coupled the exercise of taking an outdoor run with the requirement of finding out at every few steps what path was to be followed, and put an end to the exercise if this right path could not be found, it would materially detract from the good of the exercise. Let us, then, promote facility in calculation by exercising the pupil in purely straight-ahead work, without requiring him to stop and think what is to be done next.

IV. I have found in my own experience that words are as well and more easily memorized by repeated readings than by the same amount of repetition from memory. If this principle is correct, then we lose nothing by having a multiplication table before the pupil every time he repeats it, so that he shall read instead of memorize it. I do not present this view as a demonstrated fact, but as one worthy of being tested.

V. The plausible system of learning one thing thoroly before proceeding to another, and taking things up in their logical order only, should be abandoned. Let us train the pupil as rapidly as possible in the higher forms of thought and not be afraid of his having a little smattering of advanced subjects before they are reached in regular course. Let us remember that thoroness of understanding is a slow growth, in which unconscious cerebation plays an important part, and leave it to be slowly acquired. A teacher aiming at thoroness might have kept Cayley or Sylvester working half his life on problems of advanced arithmetic without reaching his standard of thoroness. Let us promote the development of higher methods in the earlier stages by introducing algebraic operations immediately after the four fundamental rules.

VI. Separate the actual exercises for acquiring facility in arithmetical operations from the solving of arithmetical problems. If I am right, it will be more conducive to progress to be satisfied with the graphic representations of problems,

without the arithmetical operations of solution, than by actually going over the solution itself.

VII. If I am not straying too far from my theme, I may devote one moment to the extension of the ideas I have advocated to the mensurational side of geometry and physics. As a part of the arithmetical course, let us teach geometrical conceptions, the aim being a correct apprehension of lines, lengths, angles, areas, and volumes as they actually exist in the objects around us, and are to be conceived in thought when these objects are out of sight. Valuable exercises in this respect will be endeavors to estimate a result in advance of calculating it. If a freight car is the subject of measurement, either in thought, or by a picture, let the pupils form the best judgment they can as to the number of cubic meters or of tons of water the car will hold before making the computation. Practice in estimating lengths, angles and magnitudes generally, by the eye, should be part of the elementary course.

I may conclude with a brief statement of what we may hope for by the system, of which the general principles have been outlined. It is, in the first place, the more rapid command of the nature of all those problems which are to be solved by numbers and in the second place facility in performing the necessary operations. To put the system into successful operation requires a well-chosen collection of problems, explanations, and exercises quite different from those with which we are familiar. It also requires, both in the designer of the exercises and in the teacher, a clear idea of the end to be kept in view, and of the best means of attaining it in each special case. Here, my own part must end with the submission of my ideas to the most competent authorities represented in the present assemblage, hoping that the plan will be deemed worthy, at least, of the test of a fair trial.

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IV

THE EDUCATION OF WOMEN¹

Woman's claims for higher education have been heard, and she is not only availing herself of present opportunities, but is seeking fresh ones. Oxford and Cambridge date back to the twelfth century, but the founding of Newnham was in 1875. Harvard was founded in 1636, but it was not until 1894 that Radcliffe granted degrees to women. Yale began its beneficent career in 1701 and Princeton in 1746, but Mt. Holyoke Seminary did not open its doors until 1837, and college work was not established there until 1888. Vassar's noble work for women dates from 1865, while Barnard is comparatively a child among the women's colleges, since it is only fifteen years old. Wellesley and Smith began college work in the same year (1875), while Bryn Mawr began a decade later. Whatever advantages women have enjoyed from these and other institutions of learning, have been won in the face of prejudice and deep-rooted and time-stained opposition.

Now, it would seem to appear, after an examination of the curriculums of men's colleges and women's colleges, that the latter have been patterned too closely after the model established for the education of men. Students, faculties, and trustees in institutions for the training of young women have been too prone to copy the newest departures in one or more institutions for males. Rarely has there been any thought of adjustment to sex. The idea of the advisability and desirability of a distinct line of differentiation in the making of the courses of study does not seem to have obtained, or if it has obtained, the necessary means and opportunities were not at hand for carrying out varying courses of study. The notion has seemed to be too generally prevalent that whatever was good for a young man

¹ From an Address delivered at the Convocation of Adelphi College, Brooklyn, N. Y.

to learn was equally good for a young woman; that whatever studies the young man might successfully pursue, a young woman might pursue with equal success. Mathematics and the sciences based upon mathematical foundations are to be found in women's colleges. Is there no indication that a distinct line of differentiation should run between the two courses of study for each? Has nature endowed both man and woman with equal gifts of heart and mind and with equal richness of gifts? Has nature blazed a path which each should follow in coming into the possession of his or her powers? If there be a natural line of division, then we fly in the face of nature if we give the same course of study to both. If nature has given us a clew and has indicated the desirability of a different kind of training for woman, then do we not unsex her when we attempt to force upon her the same education which fits a man for the struggle of life? Shall we attempt to make her a mannish woman? The best training for a young woman, it has been found, is not the old rigid college course which has been found unfit for young men and which has been discarded for the elective system. Most college men look forward to getting professional training as few women do. Women take up higher education because they like it; men, because their careers depend upon it. To the man the studies are more objective and prepare him directly to face the world as it is.

Let us keep clearly in mind in examining this question that there is a womanly type of woman. There are ladylike men; there are masculine women. Each variety is a differentiation from type. We must hold clearly in mind the type of woman we are to educate. We must establish an ideal which we are to attempt to realize. This ideal must be established in the light of future usefulness. It must be made with an entire life's work in view. It must be made for a sex, or at least for that part of the sex mentally equipped for higher education, and not for the choice few who are unusually gifted. It must be made, not for the future authoress, nor musician, nor painter, nor teacher, nor manager of a business concern. Higher education will enable all these classes to realize them-

selves and to develop and control their mental resources, but the woman we have in mind is none of these. That is, she is not primarily one of these, but she is a woman with even greater potentialities, with even richer opportunities of blessing the race and of making the circle of her life radiant with helpful and benign influences—she is a wife and a mother. Of the highest importance is the ideal of cultivated and consecrated wifehood. What then should be the line of education to be followed in the secondary schools and colleges in educating a prospective wife and mother primarily, and incidentally a teacher, a business woman, an artist?

Grant Allen, in an article published in the *Popular science monthly* of December, 1889, declares that there ought to be a woman question and movement, but it must accept the fact that most adult women will be wives and mothers. In any ideal community the largest possible number of women must be devoted to maternity, and marriage and support by men must be assumed. Female celibacy must not be the goal for the woman. The accidental and exceptional should not replace the formal and usual. It is not so much the unmarried minority that need attention as the mothers. Le Bon, in the *Revue scientifique*, pleaded that the education we now give to girls is ill-adapted to fit brains otherwise constructed; that it perverts womanly instincts, falsifies the spirit and judgment, enfeebles the constitution, and generally disequilibrates them. Too much information, largely useless, is given, with the result that there is an unfitting for domesticity or for the gaining of a livelihood. Dr. Playfair, in the *British medical journal*, says that the prime and alarming fault in the heads of high schools and colleges for girls is that they, consciously or unconsciously, assume the absolutely untenable theory that the sexual question is of secondary importance, and that there is little real distinction between girls and boys from fourteen to twenty.

Let us notice the physical differences between man and woman. Women are shorter and lighter in weight. The adult height, as compared with man's, is about as 16 to 17, and her weight is as 9 to 10. Her trunk is relatively slightly longer, the lung capacity, relatively less; the blood has fewer

red corpuscles; her bones, a little less specific gravity. She is more anæmic, and her pulse is faster. She is more liable to certain diseases, such as scarlet fever and diphtheria, but resists diseases better and succumbs less readily at nearly every age. Woman's skull is smaller, especially at the base, but larger in circumference at the crown. Her absolute brain weight to that of man is about as 9 to 10, but her smaller size makes her brain about equal, if not heavier, in weight proportionately. The lower centers are larger in women, and in nearly all these respects women differ less among themselves than do men. The average brain weight is five ounces less. The gray matter, or cortex, of the female brain is shallower than that of the male and receives less than a proportional supply of blood. The specific gravity of the gray material of the brain is less in woman, but in the white matter there is no difference. The sexes have the same brain convolutions, but of different sizes, and the same powers, but in differing degrees. The general physique is less robust than that of man.

Glancing now at some of the mental differences, we note the following: Men are superior in strength, rapidity, and in rate of fatigue, but women are superior in new motor combinations. Woman excels in memory; her thought is more concrete and individual; she is more prone to associations in space, as man is in time. Men are more prone to bring things under general rules and with regard to symmetry. Her logical thought is slower in movement, but her associations are quicker than those of man, and she is less troubled by inconsistencies. An examination of the patents recorded in Washington up to October, 1892, shows that of 483,517 patents only 3458 were by women. This would seem to indicate that woman has less patience with the analysis involved in science and invention. In education, men have made most of the reforms. Recent developments show that man can excel woman even in dress-making and cooking. We note also a comparative absence of originality, more especially in the higher levels of intellectual work. In her powers of acquisition she stands nearer to man than in her powers of creative thought. Yet girls are more acquisitive than boys of the same age, but, as soon as their

brains reach the stage of full development, there is greater power on the part of the male. A woman's information is less wide and deep and thoro. In no department of creative thought can woman be said to have at all approached man, save in fiction. These differences might be charged to the disabilities under which women have labored regarding education and social opinion, but this explanation is not sufficient to account for the dearth among them of products of creative genius. In passing judgment, woman is more apt to be influenced by emotion. Her more sensitive conscience enables her to accept her studies without question, and her pride and self-respect prompt her to overwork. She is a loser in the intellectual race in acquisition, in origination and judgment, but she is a gainer as well: to her credit stand superior refinement of the senses, rapidity of perception, a more retentive memory, rapidity of thought, and an almost intuitive insight. She has a nimbleness of mother-wit, which displays itself in tact, in repartee, or in the general alacrity of her vivacious mind. She does not hold her emotional life so completely in check as does man, but she is easily man's superior in all those noble and redeeming qualities which St. Paul denominates the fruits of the spirit.

Let us consider some of the subjects which young women are called upon to pursue in secondary schools and colleges. One of the subjects which give the greatest trouble is that of mathematics. It may be stated that since algebra is more or less of a formal study, the difficulties the girl experiences in pursuing this subject are not numerous, provided the problem work is reduced to a minimum. The average girl is able, without unusual devotion to the subject, to do acceptable work. Little or no creative genius is demanded; type forms are learned, and in many instances the only ingenuity required is the recognition of the type in the individual example or problem. Here then we see a wide scope for the exercise of memory, one of woman's most dependable mental qualities. When we turn to the subject of geometry, however, we find a different condition of affairs. The ordinary girl in taking up the subject tries to learn it as she has learned her history

or her Latin, by committing the demonstration to memory, but she soon discovers that her teacher has spoiled the plans by reversing the position of the figures or by changing the letters for numerals. She is at once at sea. She is called upon to reason absolutely, while her natural preference is for the concrete and individual. Moreover, she is called upon to offer original demonstrations, when she finds it well-nigh impossible to offer the demonstrations of the book. Her powers of origination are too often insufficient for the task. If she masters her geometry, it is because she varies considerably from the type, or because she devotes to the subject a disproportionate amount of time. With the acquisition there is likely also to be considerable nervous wear and tear due to the worry arising from the consciousness that she is attempting to do something for which she is not adapted, and in which she will not possibly succeed. She has found that her memory and her intuition, her love for the individual and the concrete, stand her in no stead in pursuing a subject which calls for the exercise of pure reason and inventive genius.

The subject of physics would seem also to fall under the ban for the same reason. As at present taught in our high schools and colleges, the great burden of emphasis is placed upon the mathematics of the subject. There is the same aversion in the female mind to applied mathematics as to abstract mathematics, and consequently whatever gain is made in this field results in tremendous nerve expenditure. In the inductive sciences, consequently, women seldom take the lead. These are subjects in which there is no pleasure, and consequently only limited profit.

Probably the fault is not with the subject of physics, but with the method. Too much quantitative work is demanded of both boys and girls; too little attention is given to descriptive physics; little or no attention is given to the great names who have developed the subject and made inventions household words. In obtaining quantitative work, exactness must be demanded, but exactness is a quality that comes relatively late in youthful minds as in that of the race. We are attempting to force nature; we are anticipating maturity of

mind when we crowd into a curriculum subjects in advance of the time when the mind of the average boy or girl is able satisfactorily to pursue these subjects. If the subject of physics under present conditions is taken to the end, hungry curiosity is displaced by satiety and fatigue. The college professor has been too largely in evidence in the construction of the high school course. So far as he is concerned, it is time to cry, *Le roi est mort*.

A few statistics bearing upon the subject of the teaching of mathematics in woman's colleges will be of interest. Out of 639 upper classmen at Vassar, but 82 elected mathematics. In Barnard, 24 per cent. chose mathematics. At Smith College 15 per cent. to 20 per cent. of the students are conditioned in the subject. From other colleges I was unable to secure the desired information. It is not an unknown thing tho, so I am told, in some woman's colleges to place before students examination questions which are very difficult and then admit to college or pass to an advanced grade those whose ratings approach the vanishing point. Here is an evident attempt to create an impression in extra-college circles of a high standard of requirement in scholarship. I am decidedly of the opinion that, so far as secondary school work is concerned, geometry should be optional for girls, and that the method in physics should be radically changed with the emphasis placed upon the descriptive portions of the work and the history of the subject.

What, then, should be the course of study for girls in secondary schools and colleges? The dominant aim in both matter and method should be the cultivation of health. Healthfulness and holiness are synonymous and etymologically related. The health of woman is of even greater importance for the welfare of the race than that of man. The influence of body upon mind is, in a sense, greater in woman, so that the needs of the body should be supreme. Mathematics should be taught only in its rudiments, and only those with special talents or tastes should attempt the study of the higher mathematics, or even of plane geometry. Chemistry should have a subordinate place in the curriculum. The organic chemistry involved in ordinary cooking is too complex to be under-

stood profoundly, but the rudiments of household chemistry should be included. The elementary stages of physics, with special reference to the descriptive features of the subject, and the history of the subject, should be in the list of subjects taught. Physical geography, geology, and astronomy, considered as opportunities for teaching general principles, and not as a means of impressing technical and unusual aspects of the subject, but rather as familiarizing the pupil with the untechnical aspects, should also be included. Of all the sciences, botany should present the most difficult work. The Latin nomenclature and technic of microscopic examination should come late in the course, and common names should be used, in preference to the Latin terminology. Zoology, objectively illustrated, should be cultivated and emphasis placed upon environment. The study of morphology and of structure should be less strongly emphasized. For advanced students, sociology, affording as it does its glimpse into the growth and progress of society, and political economy, with its valuable outlook upon industrial life, should find their places. Art in all its forms, appealing so strongly to the æsthetic in woman's nature, must not be overlooked.

Women excel in language and in literature. Perhaps it is too early to decide whether the modern languages are as well adapted for purposes of mental development as are the ancient languages, and perhaps we cannot take the same ground as those extremists who plead for the utter exclusion of Greek, Latin, and Hebrew, because in their judgment a smattering of knowledge is obtained at the high price of ignorance of other and more valuable things. But the opportunities for the study of modern languages should be abundantly afforded, and the conversational methods in these subjects should be generally adopted. Nor can we overlook the necessity for a general course in pedagogy, in child study, and in nursing, since these aim to develop power of body and of soul—power which will be reproduced in the home influence upon coming generations. The course in English should be comprehensive and exhaustive. Specialization in all these subjects should come at the end of the course. Specialization has its place, but man is better adapted to it

than is woman. If there is special capacity for particular work, if there is the natural endowment for a particular calling, this work should be left to the university, rather than to the college. The humanities are the particular branches which may well be emphasized in making a curriculum for women based upon their special needs. We may never, except at risk of violence, short-circuit nature, but we may wisely accelerate nature's way. We may consider the adaptability of woman to the course of study wisely only when we have studied her fitness to do advanced work.

After I had gone over the subject-matter of this address in my own mind and determined upon my line of argument, it was a matter of congratulation to find that the distinguished President of Leland Stanford University, in an article in the *Popular science monthly* of December, 1902, in discussing higher education for young women, declared that the opportunity should be afforded them, but that the ideal is not the same as for young men, and that the same course of studies was not to be pursued. To his mind, the essence of the new education for women is constructive individualism.

It is of interest to consider for a moment the results of higher education upon women. The first statistics date from 1882 and include 705 graduates of twelve colleges: 44 per cent. said that they did not worry over their studies; 60 per cent. reported having had some disorder during their college course, and those who studied hard had bad health. Dr. John Dewey, in an investigation which he conducted among 290 college girls, reported 78.1 per cent. as in good health on entering college, 74.9 per cent. during college life, 77.9 per cent. after graduation; 19.6 per cent. reported deterioration of health during college. Dr. Dewey concluded that one-third more break down from mental strain in female colleges than in coeducational institutions. Dr. G. A. Preston, of Boston, found a more encouraging condition of affairs. Of more than 200 college girls examined, it was found that only 2.75 per cent. dropped out from ill health, and as against 2.85 per cent. of college boys from Amherst. It must be borne in mind that the American girls enter college three and one-half years younger than do

the English girls. In the United States, according to Miss Alice Hayes, more improve than deteriorate during college life, while the reverse seems true in England. According to Dr. G. Stanley Hall, the returns from the questionnaires upon which these statistics are based are not so valuable as the medical doctors' tests and opinions. Dr. Hall reluctantly concludes that it is not yet proven that the higher education of woman is not yet injurious to her health. He questions whether woman is not overdrawing her power, her activity of mind and body, and other augmentations of her individuality, at the expense of energy meant for the home and for posterity.

It would be too sweeping an assertion to state that women's colleges are institutions for the promotion of celibacy, and yet an examination of the percentage of marriages among college-bred women would lend color to the statement. Dr. Dewey found that 23 per cent. of the graduates of women's colleges marry, 21 per cent. go into the professions; 28 per cent. of coeducation girls marry, and 12 per cent. go into the professions. He makes 26 per cent. of the graduates of twelve American colleges marry at an average age of 27 years. The marriages took place six years after graduation. He found 74 per cent. single. Miss Shinn concludes, after an examination of 1905 cases, that only 28 per cent. were married. The rate of marriage for the country at large for women more than twenty years old is nearly 80 per cent. She concludes that, under 25 college women rarely marry and but a small proportion of them have married. To quote her exact language: "The ultimate probability of a college woman's marriage, therefore, seems to be below 55 per cent., as against 90 per cent. for other women." Another investigator, Miss Abbott, showed that of 8956 graduates of sixteen colleges, 23 per cent. were married. It would appear that the rate of marriage of college women is decreasing, and that the age at which marriage occurs is becoming steadily later.

Considering next the results of the higher education upon motherhood, the case appears even worse yet for educated women. Birth rates are the indication of national growth or decay; only the constant immigration of foreigners prevents

us from occupying the position in which France finds herself at this time, that of facing the problem of a steady decadence of birth rates. In the New England family, probably the best type of American civilization, where, for two centuries, the homes were almost perfect models, the birth rate has steadily declined for half a century at a very rapid rate, until now it is actually lower than that of any European nation, France itself not excepted. Comparing the forty years ending with 1890, native marriages average 2.3 children each, while those of the foreign-born average 7.4 each. Among the causes for this condition of affairs may be stated physical and mental inability to rear children; but a stronger reason appears to be in the unwillingness to sacrifice ease, freedom, and enjoyment for the responsibilities of parenthood. A disposition to displace duty with pleasure, the effeminacy of wealth, and possibly the new woman movement, must also be included. It is evident that if our race depended upon the rate of replenishment of the educated classes, it would be doomed to speedy extinction. Are we ready to accept the idea that further human evolution requires a decline in parenthood? Physiologists tell us that high nerve development increases the completeness, the intensity, and the fullness of individual life, but weakens the power of its transmission. Evolution provides for the individual evolution of woman by making constantly increasing demands upon her for the performance of those functions which are purely physical. Any college that depended on the children of its graduates for fresh students would be doomed to extinction. Leaders are continually recruited from the class below. Time was when marriage and children were felt to be religious duties. That day seems to be disappearing. Perhaps it may be necessary to resort to legislation and to tax bachelors into marriage. An examination of the question thus far inclines one to the view that if higher education became universal, posterity would be gradually eliminated, and the schools and teachers would progressively exterminate the race.

In order that this condition of affairs may not continue to exist, it would seem to be necessary that a right ideal for wom-

anhood be established and realized. In this work the woman's college must do its part. Girls should not be trained primarily to independence and self-support. They must not be imbued with the idea that matrimony and motherhood, if they come, will take care of themselves. Some educators among women tell us that the best way to prepare a girl for life is not to give her a general education which will fit her for a common destiny, but a special training for some particular calling. It would seem wiser to consider the question of the future individual life of woman as one of social necessities and ideals, as well as of inborn psychological characteristics of self. There is actual danger of the possibility of higher education for women becoming a fad. If the woman's colleges are established chiefly to devote their energies to the training of those who do not marry, or if they are to educate for celibacy, their point of view is entirely correct. If their ideal is that of the maiden aunt, or school-teacher, or bachelor woman, they certainly are realizing their ideal. But they are withdrawing from the function of heredity the best women of the age, who are leaving no posterity behind them. Modern ideas and modern training are affecting the matter for the weal or the woe of the human race, and many whom nature designed for model mothers are apparently unfitting themselves for maternity in the pursuit of higher education. Is not this a question in the determination of which altruism should find expression?

In conclusion, let me appeal more especially to woman to aid in reconstructing a sane and wholesome ideal for woman. Let me urge her to exercise her wide influence in the making of a proper course of study for the high school girl and the college girl. Let her enlist in the new cause of working out the new humanistic or liberal education which the old college claimed to stand for and which now needs complete reconstruction to meet the demand of modern life. Let her strive to restore the humanistic elements of history and biography, of science, the most popular features at their best, and the application in all to the more non-technical fields. Let her see to it that the moral, religious, and poetic aspects of nature are not sacrificed to utilities, that materialism and commercialism do

not obliterate high ideals. Let her be true to her nature and take her stand against all early specialization of work. The time has come to restore the humanistic college to its proper sphere, and educated woman should come forward and contribute her assistance. She should do so and she should render aid from her experience in evolving a high school and a college course that is genuinely liberal. Such a course will not only fit the nature of her sex far better than do present maladjustments, but she will be aiding at the same time young men at the critical period of their own education. In doing this, she will in some measure repay her debt to man, who, grudgingly perhaps, has extended to her the benefits of higher education. She will aid him in making the college do college work, so that it will not be a faint adumbration of the university. The work in high schools and academies—the colleges of the people—is in peril, and she can aid in the rescue. If we have made a mistake in the past in placing the emphasis upon mental superiority, let us change our notion and give to the development in altruism a superior place. Perhaps our democracy has been of too strenuous a variety in insisting upon equal rights for all in the realm of intellect, as well as of politics. Woman has been caught in the maelstrom, and there has been danger of her destruction, and with her the great ideals which have stimulated her in the past. No exception to the general laws of evolution has been made in favor of woman, and she will come into her estate only when she recognizes the nature of her high ideal and then strives zealously to realize it.

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V

THE ENGLISH PREPARATORY SCHOOLS ¹

"Of the foreign and American visitors who come in increasing numbers to study English education, it is probable," says so competent an authority as Professor Michael Sadler, "that comparatively few have even heard of the existence of what we call Preparatory Schools." If this is true of the Americans who go to England to study English education, it is probably true to a still greater extent of those who stay at home and depend on their private reading for a knowledge of foreign educational systems. In what I am about to say therefore of the English Preparatory Schools, I shall frankly, tho doubtless in individual cases mistakenly, assume on the part of my audience the same ignorance of the character of these schools and their place in English secondary education that I labored under myself until a year ago. My present knowledge of them has been derived mainly from volume 6 of the Special Reports on Educational Subjects presented to the British Parliament under the authority and direction of the English Board of Education in the year 1900.

The English Preparatory Schools are, historically and actually, fitting schools for the great public schools at which gentlemen's sons are educated for the university. They are attended therefore by a select class of boys of from 9 to 14 years of age, whose parents are able and willing to give their sons an expensive education extending over a long series of years. They are strictly preparatory, not finishing schools; no boy attends them who does not expect to continue his school education farther. As, moreover, they are preparatory to the public schools, they are dominated by those schools in their course of

¹ A paper read before the Headmasters' Association of the United States, at New York, N. Y., December 28, 1905.

study. I was about to say absolutely and completely dominated, and that indeed would hardly be too strong an expression; for, as the preparatory schools are private enterprises, dependent for their support on boarding and tuition fees, and as their attractiveness to parents depends largely on the success of the boys they turn out in passing the entrance and scholarship examinations by which the authorities of the public schools test candidates for admission, it is obvious that the requirements of the public schools, as made known thru their entrance and scholarship examinations, cannot fail to exert a controlling influence on the work of the preparatory schools. As a matter of fact, these requirements are carefully studied by the headmasters of preparatory schools and accepted by them as authoritative. We frequently say in this country that the colleges and universities, thru their admission requirements, dominate the secondary schools; and to the extent to which our secondary schools are feeders of the colleges, and therefore especially in the case of the secondary schools that are distinctively fitting schools, this is true. In the same way, and to a greater degree, because of the strenuous competition developed within the last fifteen years, the English preparatory schools are dominated by the public schools to which they send their boys.

The comparison which I have made between the domination of the English preparatory schools by the public schools and the domination of our own secondary schools by the colleges and universities may be carried still further; for, in both cases, it has resulted in the establishment of systematic co-operation between the authorities of the two sets of institutions. In this country, however, the initiative came from below; in England, from above. It was the Massachusetts Classical and High School Teachers' Association that took the first steps which have since resulted in the organization of associations of colleges and secondary schools in different parts of the United States; in England, the first step taken towards co-operation between the heads of public and preparatory schools was taken by the headmasters of the public schools. At the Public School

Headmasters' Conference, held at Oxford in 1890, the headmaster of Harrow offered a resolution to the effect "that it is desirable to make the relation between preparatory and public schools somewhat closer and more systematic." This resolution was received with general approbation; and the executive committee of the conference was requested to invite the preparatory schoolmasters to "consider whether, by some representative organization, they might put themselves in fuller communication with the schools represented at the conference." Up to that time, the headmasters of preparatory schools had looked upon one another as business rivals, rather than as educational co-workers, and the suggestion that they unite for the promotion of a common end came to them as a surprise, if not as a shock; but one of their number, a natural diplomatist we may suppose, proposed a much debated question in cricket as a suitable subject for a first conference—a suggestion which met with general acceptance. The issue of this first conference was so satisfactory that a formal organization, known as "The Association of Headmasters of Preparatory Schools," was established in 1892. Thus the game of cricket established an added claim to grateful recognition for beneficent service in English education. In 1900 this association had reached a membership of more than 280, and had come to be recognized not only by other educational bodies, but by the national government, as the official organ of opinion and the official channel of communication on all subjects relating to the class of schools which it represented. Many meetings have been held between authorized representatives of the Public School Headmasters' Conference and the Association of Headmasters of Preparatory Schools for the discussion of important questions bearing on their interrelated work.

At this point, some statistical information about the class of schools under consideration will be of interest. It has been estimated that there are in Great Britain at the present time somewhat more than four hundred preparatory schools of the strict type, and that fully ten thousand boys "from the highest social stratum in the country" are in attendance at them. The

headmasters of these schools, with rare exceptions, are graduates of Oxford or Cambridge, and one-sixth of them are clergymen. Most of them have been graduated from the university in honors, and not a few of them in high honors. Most of them were fitted for the university in the public schools and many of them have been public school masters. The majority, too, of the assistant masters are graduates of Oxford or Cambridge, and most of these also have taken honors. The typical, prosperous preparatory school is a boarding school in the country, accommodating about fifty boys. The resident teaching staff of such a school consists of the headmaster and four assistant masters. Of these assistant masters, the senior, who has possibly been fifteen or twenty years in service at the school, receives a salary of about £200 a year, besides board and lodging; the junior, fresh from the university, about £120, and the other two about £150 each. The average number of boys to a resident master is only eight; but the work of the resident masters includes, besides instruction in regular subjects of the course of study, general oversight of the boys and supervision of their organized compulsory games. The average age of the boys in attendance at the preparatory schools is $9\frac{1}{2}$ years at entrance and $13\frac{1}{2}$ years at leaving; but the limits generally accepted as ideal seem to be 9 and 14 respectively.

American teachers, in considering the foregoing statistical statements, will probably be especially impressed by the facts that the teachers of these boys of 9 to 14 years of age are men and university graduates; that the classes in which they are grouped are very small; that games are organized and compulsory; and that the distribution of the entire day, including not merely the hours given to study and recitation, but the hours given to sleep, to meals, to the preparation of lessons, and to recreation are under the control of the school authorities. If these general features of organization, moreover, especially impress American teachers, the specific features of the course of study and the time-table, to which I will next proceed, will probably seem still more significant.

I have already said that the English preparatory schools

are dominated by the public schools for which they prepare their boys, and that this domination is exercised thru the entrance and scholarship examinations set by the public school authorities. To win a scholarship at a public school or to gain fairly advanced standing there, a boy must show by examination that he has reached a high standard of proficiency in classics and mathematics, for, practically, new boys are placed, that is, assigned to forms, on these two subjects alone. Some knowledge of the Scriptures, of geography, of history, of French, and of English grammar and composition is assumed; but, so far as marks and classification are concerned, such knowledge goes practically unrecognized. As would naturally be expected, the preference thus accorded by the public school authorities to the classics and mathematics is reflected in the time-tables of the preparatory schools. One school, for example, which makes a specialty of competing for scholarships, reports sixteen full hours a week, exclusive of time spent in preparation, as given by boys 13 years of age to the classics.

For detailed transcripts of individual time-tables, I must refer those interested to the volume of parliamentary reports already mentioned. It will be sufficient for my present purpose to give some general averages, which, while not precisely applicable to any individual school, represent fairly the prevailing usage, and to supplement these general averages by giving the actual time-table of a typical preparatory school. Accordingly, the average amount of time given in the preparatory schools by boys of from 9 to 10 years of age, exclusive of the time given to the preparation of lessons, is: to Latin, 5 hrs. 49 min. a week; mathematics, 5 hrs. 23 min.; French, 2 hrs. 49 min.; English, including language, literature, grammar, and composition, 2 hrs. 49 min.; writing or dictation, 2 hrs. 25 min.; Scripture lessons, 2 hrs. 12 min.; history, 1 hr. 57 min.; geography, 1 hr. 41 min.; drawing, 1 hr. 31 min.; elementary science, 57 min. The average amount of time, exclusive of the time spent in preparation, given by boys 13 years of age to these subjects, is: classics, 12 hrs. 23 min., divided between Latin, 7 hrs. 49 min., and Greek, 4 hrs. 34 min.; mathematics,

5 hrs. 38 min.; French, 3 hrs. 8 min.; Scripture lessons, 2 hrs. 3 min.; history, 1 hr. 50 min.; drawing, 1 hr. 39 min.; geography, 1 hr. 17 min.; English, including language, literature, grammar, and composition, 1 hr. 10 min.; writing or dictation, 53 min.; elementary science, 53 min. In some schools German is alternative with Greek; but in 59 per cent. of the schools reported, German is not taught at all. The average amount of time given to German in the schools in which it is taught is 3 hrs. 41 min. a week; and in such schools, as the time required for German is less than the time required for Greek, the time gained is added to mathematics and French. The average total amount of time, including time spent in preparation, given to the foregoing subjects, is: for boys of from 9 to 10 years of age, 30 hrs. a week; for boys 13 years of age, 35 hrs. Latin is begun at the age of 9 years; Greek is sometimes not begun before the age of 12, usually at the age of 11, sometimes still earlier; Euclid, by which is meant demonstrational as distinguished from objective geometry, and algebra are begun at the age of 11.

No one school, it is to be noted, teaches all the foregoing subjects. For example, 3.7 per cent. of the schools reported teach no geography, and 6.2 per cent. do not teach it in the top form, that is, in the class of 13-year-old boys; 72.5 per cent. of the schools reported teach no elementary science whatever, and 87.7 per cent. do not teach it in the top form; 38.7 per cent. of the schools reported do not teach writing or dictation in the top form; in 34.2 per cent. of the schools reported, drawing is an optional subject. The averages here quoted, then, are averages made up from the totals actually returned for each subject by the 120 schools reported.

The foregoing statement, as already indicated, gives averages calculated from the returns received from 120 preparatory schools. The following time-table, which shows the number of hours given to each subject per week inclusive of the time spent in preparation, is the actual time-table of a fairly representative preparatory school for the summer term of the year 1899:

TIME-TABLE OF A PREPARATORY SCHOOL, 1899

FORM OR CLASS		I.	II.	III.	IV.	V.
Average Age		9 yrs. 8 mos.	11 yrs.	11 yrs. 2 mos.	12 yrs. 6 mos.	12 yrs. 7 mos.
Classics	Latin.....	8¾	12¾	9½	10½	11
	Greek (or German).....			5	5	6½
Math.	Arithmetic.....	6	5	4	3¾	2½
	Algebra.....				2	2
	Geometry.....		2	3	2	2
French..		4	4	4	4	4
English	Gram., Lang., Lit.	6¼	4	1	½	¾
	Writing and Dictation	1½	1	1	½	¾
Religious knowledge.....		1½	1½	1½	1½	1½
History	English.....	1½	2	1½	1½	1½
	Greek or Roman..			1	1	1
Geographv		1½	1	1	1	1
Drawing...		1	(In these classes optional)			
Headmaster's weekly review.		¾	½	¾	½	
Total number of hours a week.		32¾	33¼	33¾	33¾	34

Supplementary Subjects

Singing (two divisions).....	1 hr. a week
Drilling and Gymnastics (two divisions)....	1½ hrs. a week

Optional Subjects

Drawing (two divisions).....	1½ hrs.	2 hrs. a week
Instrumental Music (including practice) ..	3 " " "	
Carpentering	1 " " "	
Fencing or Boxing ..	1 " " "	

The time-tables which I have thus summarized show the number of hours given to each subject included in the regular course of study of the schools under consideration, and reveal clearly the supreme importance attached, under the ideal embodied in the requirements of the public schools, to the classics and mathematics; but they do not necessarily indicate the standard of attainment aimed at in those subjects. For information on this point we must consult the entrance requirements of the public schools, and especially we must learn how these requirements are to be interpreted. In other words, we must consult the examinations set for admission to the public schools. Moreover, as the entrance scholarship examination differs from the ordinary entrance examination in degree only, and not in kind, and as it is the scholarship examination thru which the public school determines the content and scope of the course of study for clever and average preparatory school boys alike, we may safely found our estimate of what the English

preparatory school aims to do for boys of 14 on the scholarship examination papers by which the clever boys are tested when they appear as applicants for admission to the public schools. As a precaution against too high an estimate, we may note in advance that only about 8 per cent. of the candidates for admission of a given year reach a sufficiently high standard in the examination to secure election to a scholarship.²

Altho the papers set in other departments would also be significant and instructive, I have, in the interest of brevity, limited myself in selecting specimen entrance scholarship examinations to the two subjects which I have spoken of as rated first in importance in the preparatory school program; namely, classics and mathematics. Moreover, as the Eton scholarship examination papers, as printed in the parliamentary report already referred to, afford fuller information than the others as to the conditions under which the examinations were taken, giving the age of the candidates and the time allowed for the writing of the answer papers, I shall select the examinations offered as specimens from the Eton collection exclusively. But, in view of this limitation of the field of selection, I may add that the mathematical paper offered from the Eton collection is somewhat more elementary than certain others included in the parliamentary report. The latter, being set for boys who had specialized in mathematics instead of classics, cover trigonemtry and advanced algebra. By way of introduction to the subjoined Eton entrance scholarship papers, a few words of statistical information about the scholarships to which they lead will be of interest.

The ordinary annual fees for a boy at Eton amount to £136 10s; but the fees for a scholar, as the winner of a scholarship is called, are only £20 10s. The annual value of a scholarship, therefore, is £116. The scholarships are derived from endowments, and the object for which they are maintained is to attract clever boys to the school. The examination of the

² In the course of the discussion of this paper, Mr. John H. Denbigh, a gentleman familiar with English conditions, said that the small proportion of candidates elected to scholarships was due to the limited number of scholarships to be awarded, not to the defective preparation of the candidates.

candidates is conducted mainly by outside examiners. There are seventy of these scholarships in all, and the seventy boys who hold them, called "scholars" in distinction from the "commoners," live by themselves in a separate house called the "College." It may be interesting to note, in passing, that these seventy picked boys are not inferior to their associates in athletic prowess.

The following papers were set for boys under 14 years of age at the Eton scholarship election of July, 1899. The time allowed for each paper was two hours. The passages set for translation were unseen passages, and were unaccompanied by notes or vocabularies.

I For Latin Prose Composition

"I have long since avowed my belief that, in accordance with God's purpose, each nation of the earth possesses a peculiar character adapted to the duties assigned to each in the great scheme of human affairs.

Thus to France was appointed by the Supreme Ruler of mankind the duty of civilizing the European world. To England it has been given to guide all other states to commercial wealth, to excellence in the useful arts of life, and to political liberty. But to Germany was delegated the highest and noblest trust. For in Germany we revere the mother of nations, the reformer of corrupted religion, the preserver of the liberties and independence of the republic of nations. Weakened as she has been for aggressive war by the division of her territory into so many states yet in that very weakness she has found her strength in the beneficent career she was destined to pursue. Our age has seen her assumption of her proper place in the republic of letters, and we ourselves are witnesses how, in this new sphere of distinction, she has exhibited the same strength which more than a thousand years ago enabled her to lay in this island the basis of government, of which, if we are true to ourselves, a thousand years will scarcely see the overthrow."

II Latin Translation

1. [A narrative passage from Tacitus, of which the subject is] "The poisoned prince calls on his friends to avenge his death.

"Caesar paulisper ad spem erectus, dein fesso corpore, ubi finis adierat, adstantes amicos in hunc modum adloquitur. 'Si fato concederem, iustus mihi dolor etiam adversus deos esset, quod me parentibus liberis patriae praemature exitu raperent. Nunc scelere Plancinae interceptus ultimas preces pectoribus vestris relinquo. Si quos spes meae, si quos propinquus sanguis, etiam quos invidia erga viventem movebat, inlacrimabunt quondam florentem et tot bellorum superstitem muliebri fraude cecidisse. Erit vobis locus querendi apud senatum, invocandi leges. Non hoc praecipuum amicorum munus est, prosequi mortuum ignavo questu, sed quae voluerit meminisse, quae mandaverit exsequi. Flebunt Germanicum etiam ignoti

vindicabitur vos, si me potius quam fortunam meam fovebitis' Iuravere amici, dextram morientis contingentes, spiritum ante quam ultionem amisuros."

2 [A passage from one of Terence's plays, the subject of which is:] "Simo begs Chremes to let the wedding take place

"S: Ausculta paucis Ch Ausculto, loquere quid velis

S: Per te deos oro et nostram amicitiam, Chremes, quae incepta a parvis cum aetate adcrevit simul perque unicam gnatum tuam et gnatum meum, cuius tibi potestas summa servandi datur, ut me adjuves in hac re, atque ita uti nuptiae fuerant futurae, fiant Ch. A ne me obsecra quasi hoc te orando a me impetiare oportet Alium esse censes nunc me atque olim cum dabim? Si in rem est utrique ut fiant accessi iube Sed si ex ea re plus mali est quam commodi utrique, id oro te in commune ut consulas, quasi illa tua sit Pamphilique ego sim pater

III Latin and Greek Grammar

1 Give the abl sing and acc pl of sal amans (subst and part) aucteps, aries domus, and the gen sing and acc pl of οστήρ ἴμαρ, βοίς, ἄνθος Σοφοκλῆς

2 Give the perfect and sup of torreo neglego, meto, fingo, the imperf. indic act. of ἔρω (αἰάω) ἐποιμαί, καθίζωμαι and the aor act of ἀναλίσκω, κλαίω, πιμπλῃμι χέω

3 Parse eluxi, ausim, aqua, fure εὐχῇ ἔλα σφί κεκμηότα

4 Show by examples the constructions the following words admit of suadeo minor, piget, dubito κατακρινῶ ἀμύνω (act and mid), μεταδίδωμι

5 Distinguish between the use of nequis—ut nemo, tum—deinde, quisvis—aliquis, ὅτε—επειδή, ὥς with aor and imperf, μετα with gen, dat, and acc

6 Parse and explain the formation of θάσσων μεσαιτερός, εἰλκων, σχίς discuss the spelling of sylva, vulgus, sepulchium, and give the meaning of HS SPQR CCICD SPD

7 Explain the term 'Middle Voice' with what meanings is it used in Greek? What traces do you observe in Latin?

8 Put into Latin and Greek

i At my house, in our time, on this condition

ii Had I happened to be present, I should not have done so

iii I came to tell you I was ready, so that you might know what to do.

iv He said he would not go himself before Caesar returned'

IV Greek Translation

1. [A narrative passage in Attic prose from Plato's *Republic*, the subject of which is] "The secret of happiness in old age.

Εὐ οὖν μοι καὶ τότε ἔδοξεν ἐκεῖνος εἰπεῖν, καὶ νῦν οὐχ ἦντον. παντάπασι γὰρ τῶν γε τοιοῦτων ἐν τῇ γῆρᾳ πολλὴ εἰρήνη γίγνεται καὶ ἑλευθερία, ἐπειδὴν αἱ ἐπιθυμίαι παύσονται κατατείνουσαι καὶ χαλάσωσι καὶ ἐγὼ ἀγασθεὶς αὐτοῦ εἰπόντος ταῦτα βουλόμενος ἔτε λέγειν αὐτὸν ἐκίνουν καὶ εἶπον, 'ὦ Κέφαλε, οἰμαὶ σου τοὺς πολλοὺς, ὅταν ταῦτα λέγῃς, οὐκ ἀποδέχεσθαι, ἀλλ' ἡγεῖσθαι σε ῥαδίως τὸ γῆρας φέρειν οὐ διὰ τὸν τρόπον ἀλλὰ διὰ τὴν πολλὴν οὐσίαν κεκτῆσθαι· τοῖς γὰρ πλουσίοις πολλὰ παραμυθία φασιν εἶναι. 'Ἀληθῆ, ἔφη, λέγεις. οὐ γὰρ ἀποδέχονται καὶ λέγουσι μὲν τι, οὐ μέντοι γε ὅσον οἴονται, ἀλλὰ τὸ τοῦ Θεμιστοκλέους εὐ ἔχει, ὃς τῷ Σεριφίῳ λωιδουμένῳ καὶ λέγοντι, ὅτι οὐ δι' αὐτὸν ἀλλὰ διὰ τὴν πόλιν εὐδοκίμοι, ἀπεκρίνατο ὅτι οὐτ' ἂν αὐτὸς Σεριφίος ὦν ὀνομαστὸς ἐγένετο οὐτ' ἐκεῖνος 'Ἀθηναῖος καὶ τοῖς δὴ μὴ πλουσίοις χαλεπῶς δὲ τὸ γῆρας φέρουσιν εὐ ἔχει ὁ αὐτὸς λόγος, ὅτι οὐτ' ἂν ὁ ἐπιεικὴς πάνν τι ῥαδίως γῆρας μετὰ πενίας ἐνέγκοι οὐθ' ὁ μὴ ἐπιεικὴς πλουτήσας εὐκόλως ποτ' ἂν ἑαυτῷ γένοιτο.

2 [A passage of verse in the elegiac stanza from Theognis, the subject of which is :] " ' In eternal lines to time thou growest.'

'Ἀκρόπολις καὶ πύργος ἔων κενεόφρονι δῆμῳ,
 Κύρην, ὀλιγῆς τιμῆς ἔμμορην εὐσθλὸς ἀνὴρ
 σοὶ μὲν ἐγὼ πτέρ' ἔδωκα σιν οἷς ἐπ' ἀπειρονα πόντον
 πωτήσῃ κατὰ γῆν πᾶσαν αἰερόμενος
 ῥηδίως θοιναις δὲ καὶ εἰλαπινῆσι παρέσση
 ἐν πάσαις πολλῶν κείμενος ἐν στομασι
 καὶ σε σὺν αὐλίσκοισι λιγυφθόγοις νύοι ἄνδρες
 εὐκόσμως ἔρατοὶ καλὰ τε καὶ λιγέα
 ἄσσονται καὶ ὅταν ὀνοφέροις ὑπο κειθμασι γαιῆς
 βῆς πολυκωκίτους εἰς 'Αἶδαο δόμους,
 οὐδε ποτ' οὐδε θανάῳ ἀπολείς κλῆος, οὐδε γε λήσεις
 ἄφθιτον ἀνθρώποις αἰὲν ἔχων ὄνομα,
 Κύρνε, καὶ 'Ελλάδα γῆν στρωφόμενος ἥδ' ἀνα νήσους,
 ἰχθυόοντα περὶ πόντον ἐπ' ἀτρύγετον,
 οὐχ ἰππων νύτοισιν ἐφθήμενος ἀλλὰ σε πεμψει
 ἄγλαα Μουσῶν δῶρα ἰσοεφάνων.

V. For Latin Elegiacs

1. The Tilters of the Sea

No fish astir in our heaving net,
 The sky is dark and the night is wet ;
 And we must ply the lusty oar,
 For the tide is ebbing from the shore,
 And sad are they whose faggots burn,
 So kindly stored for our return.
 Our boat is small and the tempest raves ;
 And nought is heard but the lashing waves :
 Yet sea and tempest rise in vain,
 We'll bless our blazing hearths again.
 Push bravely, mates, our guiding star
 Now from the turret streameth far :
 Before the midnight hour is past,
 We'll quaff our bowl and mock the blast.

For Lyrics

2. After Sorrow Cometh Joy

Sweetly gleam the morning flowers
 When in tears they waken,
 Earth enjoys refreshing showers,
 When the boughs are shaken
 Stars shine forth when night her shroud
 Draws as daylight fainteth,
 Only on the tearful cloud
 God his rainbow painteth

VI Mathematical Paper

1 Find the number of acres in a square field whose perimeter is one mile and a half. Also show that the length of its diagonal is between 53 and 54 yards more than half a mile

2 Find the quotient when

$$(cy-bz)^2 + (az-cx)^2 + (bx-ay)^2 + (ax+by+cz)^2$$

is divided by $x^2+y^2+z^2$

3 Add together the fractions

$$\frac{a+b}{ab+c^2} - \frac{a+b}{ac-bc} \quad \frac{a}{ac-c^2} \text{ and } \frac{b}{bc-c^2}$$

4 Solve the equations

$$(1) \quad \frac{2}{x+1} = \frac{4}{x-3} - \frac{3}{4}$$

$$(2) \quad x^2 + y^2 + x + y = 32 \quad xy = 12$$

5 A boy who runs to school at the rate of ten miles an hour, is one minute late, if he had run at the rate of twelve miles an hour he would have half a minute to spare. How far had he to go and how much time had he to do it?

6 Solve the equation

$$x^2 - ax - 12a^2 + 5x + 22a = 6$$

and determine the factors of

$$x^2 - xy - 12y^2 + 5x + 22y = -6$$

7. Find the sum of 20 terms of an arithmetical series whose 7th term is 16 and its 13th term 31

8. If the difference of the roots of the equation

$$x^2 - 2(a+c)x + b^2 = 0$$

be equal to the difference of the roots of the equation

$$x^2 + 2(b+c)x + a^2 = 0$$

and a be not equal to b , prove that each equation has its two roots equal to one another.

9. If a straight line be divided into any two parts, the squares on the whole line and on one of the parts are equal to twice the rectangle contained by the whole and that part, together with the square on the other part.

10. From a given point O external to a given circle draw a straight line OPQ to cut the circle at two points P and Q , so that OP shall be equal to PQ .

11. The opposite angles of any quadrilateral figure inscribed in a circle are together equal to two right angles.

12. If I be the center of the circle inscribed in the triangle ABC , prove that the centers of the three circles which circumscribe the triangles IBC , ICA and IAB , are on the circumference of the circle circumscribing the triangle ABC .

13. If the vertical angle of a triangle be bisected by a straight line which cuts also the base, the segments will have the same ratio as the other sides of the triangle have to one another.

During the reading of the foregoing examination papers, you have doubtless been mentally comparing the character and scope of the preparation for secondary school work which they imply with the character and scope of the preparation made for the corresponding grade of school work in this country, and you have probably been reflecting, too, on the educational ideals which the papers embody and the lessons, perhaps, that we may profitably draw from them. Whatever opinions you may personally entertain on these points, you will, I am sure, be interested to know what cultivated English schoolmasters themselves think of their own educational procedure.

Mr. G. Gidley Robinson, headmaster of a preparatory school, in a paper on "The preparatory school curriculum," says: "The clever boy climbs rapidly up the school by the classical ladder. An entrance scholarship is waiting to be won, and he has every temptation to drop, one after the other, all subjects which will not pay in the examination; thus his grounding is apt to be narrow, and his interest in everything except the world of books is stunted and impoverished. At thirteen and a half he will show a precocious facility in finding his way through an 'unseen,' or in writing a piece of Latin prose; but (unless he happens to come from an unusually cultivated home) his knowledge of the world in which he lives, indeed of nearly everything out-

side the classics, will be very small. And he will certainly suffer from the special weakness inherent in an exclusively bookish training, viz., want of originality, want of power to look at things with his own eyes instead of thru the eyes of his 'authorities.' He has come to the top, as the clever boy always does, be the curriculum what it may, and he is certainly, in a sense, a success; but what of the great majority, the boys of moderate or less than average ability?"

A representative committee of the Association of Headmasters of Preparatory Schools, in a statement prepared in response to a request addressed to it by a committee of the Public School Headmasters' Conference in 1897, says:

"The difficulty in covering all the necessary ground has its effect . . . upon most masters as well as boys. They not only have a sense of distress caused by the present pressure, but are also led to do a great deal more for their boys than is good for them. In order to save time, they are tempted to feed them with information instead of educating them. And thus, by their very willingness and devotion, they often weaken the spring of the mind, and destroy the power of doing original or unaided work.

"The hardworking boy of fair ability, who perhaps gets a scholarship under the present system, shows the bad effects of his training more clearly than the clever boy. He wins success for the most part by sheer effort of (verbal) memory. The strain of preparation cannot be kept up. The boy's brain revenges itself by lying fallow; and the public school wonders how the examiners could have elected so dull a boy.

"The ordinary dull boy suffers most of all. He has little aptitude for languages. The endless Latin and Greek and French and mathematics are to him intolerably wearisome. Hence he hates schoolwork as drudgery. His curiosity (probably the one link with cultivation that he possesses) is left dormant. There is a divorce between his work and his life. And so, when he reaches the public school, he seems to have learnt very little of anything, and does not know what to do with his leisure. Hence the excessive athleticism we most of us deplore, and the educational failures that are so common."

Professor Michael Sadler, formerly the Director of Special Inquiries and Reports for the Board of Education, in a paper on "The place of the preparatory school for boys in secondary education in England," says:

"The quality of the work done in classics is specially remarkable; and it would be a grievous mistake to think that anything short of the very best teaching in other subjects could effectively take the place of what is now so well done in Latin and Greek. Many experienced and skillful schoolmasters are convinced that exact teaching in the classical languages is an unrivalled discipline for the mind—not in a directly utilitarian sense, but in its indirect effect on the logical powers. Many other people, while not prepared to concede the unique excellence of the older classical training, would cordially agree that, in skillful hands, the teaching is thoro and that, in a certain limited sense, it severely disciplines the mind of the boys. But they feel that it often fails to induce a wide range of intellectual interests. It causes the boys to miss their one opportunity of learning many things far more appropriate than advanced classics to their natural tastes and years."

On the question of Latin Verse composition, Dr. Hely Hutchinson Almond, headmaster of a public school, in a paper on "The preparatory school product from the point of view of a public school master," declares that the making of Latin verses cultivates resource and ingenuity more than anything that a boy does"; and, lest you curtly dismiss his opinion as that of a hide-bound pedant, let me ask you to listen to his ideal of the standard by which the preparatory school product should be judged: "We shall be on the highroad," he says, "to have the 'preparatory school product' more as he ought to be when parents as well as public school authorities come to care more for what he is than for what he knows; for his powers of intelligence and reasoning rather than for a packed portmanteau of information; for health, activity, and high spirits rather than for the strokes he has learned at cricket. Let them estimate the influence of his school life by the openness of the boy's countenance, the frankness of his manner, the courtesy, kindness, and honesty of his conduct, by the clearness of his com-

plexion and the good development of his chest and arms; by his fertility in resource; by the books and parts of a newspaper which he reads; and by the subjects on which he cares to talk."

On the other hand, Headmaster Robinson, already quoted, says of Latin verse composition: "In the great majority of cases verses are either stolen from a *Gradus*, or pieced together out of the tags that long practice has taught the boy how to use. In other words, they are no test of originality, but only of ingenuity and a well-drilled memory. It must be a common experience of public school masters to find that a boy who has produced a surprisingly good set of verses in his scholarship examination, is quite devoid of the taste, the imaginativeness, which his performance had seemed to imply."

I have said nothing of the physical training or the social life provided for the boys of the English preparatory schools. Interesting and significant as these aspects of education are, and important as is their share in the results achieved in the narrower domain of the specifically intellectual work of the school-room, the consideration of them would take me too far afield. I will close this paper with a few brief observations on the more striking contrasts which it suggests between English and American practice in the restricted field which it covers.

It is clear that the so-called public schools, which conspicuously embody the traditional English ideals of secondary education, have, as compared with our American high schools and endowed secondary schools, the immense advantage of resting, for a foundation, on a body of preparatory schools which constitute, in conjunction with them, an organically related, self-consistent, progressive system of education. We may not accept the ideals embodied in that system—indeed, it is at least doubtful whether the great majority of thoughtful Englishmen accept them, and it is certain that a respectable minority of competent English critics distinctly reject them—but that a self-consistent system, whatever its defects of detail may be, is, as such, of priceless value will not be disputed. In England, as in Germany, the boy who is to enjoy the advantages of a prolonged school training begins the appropriate study of sec-

ondary school subjects at the age of nine years, and continues the study of them to the age of nineteen years, under the prescriptions of a well understood and harmoniously administered system of training that has grown with the growth of the nation, that embodies the nation's ideals, and that is identified with the national greatness. This English system insensibly and naturally merges elementary with secondary education five years before the adolescent period begins, and carries the mental development of the boy forward without marked break until the instincts and powers of early manhood open; the prevailing American practice draws a sharp line of demarcation between elementary and secondary education at the age of fourteen and, by delaying the beginnings of secondary education, voluntarily sacrifices, thru misdirected effort, two years of precious time. By postponing the introduction of secondary subjects to the age of fourteen, and confining our children to the dreary round of elementary subjects until the period of adolescence begins, we show a want of faith in the unfolding powers of the mind which no facts drawn from experience can be found to justify. If it could be proved that the mental development of English and German boys is hindered by the early introduction of such subjects as algebra, geometry, Latin and French, and that the mental development of American boys is promoted by the late introduction of them, then the prevailing American practice would stand amply justified. But will any competent observer maintain that this is true? On the contrary, do not reason and experience alike prove that such postponement results in arrested development?

Again, look at the size of the classes in the English preparatory schools and the ratio of teachers to pupils. Compare the prevailing organization of American elementary schools into classes numbering forty to fifty with the prevailing organization of the English preparatory schools into classes numbering eight to ten. We train our boys during the elementary period by companies; they train theirs by squads. Our organization naturally and inevitably leads to mass teaching and lockstep promotion; theirs rather to tutorial training and advancement according to proficiency. With us all the members of a class

are taught the same subjects in a body; with them a boy may study mathematics with one group of associates, Latin with another, and French with a third.

When I read, in the report of the Mosely Commission, the disparaging comments of our English visitors on the school work in the classics which they saw in this country, I was somewhat discouraged to find that critics of so friendly a spirit found so much to censure and so little to commend. But when, on investigation, I learned who our critics were, and what their antecedents had been; that they had personally experienced the classical training given in the English preparatory and public schools, and later at the universities, and that they were naturally imbued with the spirit of those institutions, I took heart again. From their point of view, their criticisms were natural and just; if they had been familiar with our environment, and had been capable of viewing our work in a sympathetic spirit, their observation would have been more enlightened, and their interpretation more perspicacious.

It is, of course, to be remembered that the schools which I have described are schools for the favored few, not for the unprivileged many; that the maintenance of them tends to perpetuate the social distinctions which, theoretically at least, we disapprove; that the higher standard reached by them in a limited range of subjects is purchased at the expense of the normal development, and therefore of the real interests, of a considerable proportion of the boys who attend them; that the individual attention lavished on the boys belonging to them exists side by side with a callous indifference to the mental development of the great multitude of boys who stand lower in the social scale; that national enthusiasm for universal education is relatively non-existent in England; and, finally, that in all these important respects our national standards are probably more altruistic, and therefore intrinsically nobler than theirs. If this is true, it is a proper subject for self-congratulation. But the fact that our lowest standard in education is distinctly higher than their lowest, and that our average is probably higher than their average, should not lead us to rest content with the undoubted fact that their highest standard of

secondary education is greatly in advance of ours. I am persuaded that, in the earlier and later stages of secondary education, and especially in the interrelation of the two, we have much to learn from England, and that, in some departments, we can more profitably go for instruction to the preparatory schools of England than to the Progymnasien of Germany.

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VI

INDIRECT COMPULSORY EDUCATION—THE FACTORY LAWS OF MASSACHUSETTS AND CONNECTICUT

In every system of universal education, there are two essential elements. First, schools must be established and supported; and second, all children of school age, either by public opinion or obligatory laws, must be required to attend them unless other adequate means of education are provided.

This was fully understood by the New England Puritans. The first two acts relating to education passed by the General Court of Massachusetts created a system of universal education; and Connecticut followed the example thus set when the code of 1650 was adopted.¹ From their establishment in the seventeenth century until early in the nineteenth, the fundamental principles of these systems remained unchanged. The school legislation of the intervening period was either to make more ample provision for the establishment and support of schools, or to increase the effectiveness of existing attendance laws. Indeed, the very first statute on education passed by Connecticut in the last century did little more than reiterate the principles set forth so clearly in the first code. This statute was enacted in 1805, and required all parents to see that "their children are able to read the English tongue well and know the laws against capital offenses." It differed from the code only in the penalty fixed for failure to comply with its provisions.²

These early laws were quite faithfully executed in both commonwealths. They expressed the educational creed of a majority of the people, and the high intelligence that has characterized the people from the earliest times is sufficient evidence of their utility. It should be said, however, that the success-

¹ See article "Beginnings in compulsory education," by John W. Perrin, *EDUCATIONAL REVIEW*, March, 1903.

² *The Public Statutes of Connecticut* (Hartford, 1808), p. 123.

ful administration of these systems was due primarily to the favorable conditions under which they were established. The people were homogeneous and well-to-do. They were intelligent and industrious. Besides this, the Protestant creed which they professed had been from its origin the stanch friend of such systems as these commonwealths had established. Indeed, universal education was the basal stone on which Protestantism had been reared. This explains the unanimity of thought relative to these systems, and the united action that was given to their support.

A new industrial system began in the latter part of the eighteenth century. This completely changed the simple social arrangement that had characterized New England for more than a hundred and fifty years. In England, the inventions of Hargreaves, Crompton, Arkwright and Watt had revolutionized the manufacture of textile fabrics. The old methods were superseded by organized manufacturing establishments. The cottage of the weaver could no longer be his factory. To support himself and family, he was now required to move to the nearest town and engage in the employ of some capitalist.

While this new régime was indispensable to the further economic development of England, it was attended with most evil consequences. Soon it was found that very young children could do the lighter portions of the work. Then many children from the poorest families in the south of England were sent by the poor-law-overseers to be apprenticed in the manufacturing districts of the north. Here they were treated little better than slaves. They were worked night and day, and it is said that "one gang, when exhausted, went to rest in the beds still warm of those coming on to work."³ Besides this they were ill fed and poorly clothed.

The overworking and underfeeding of these pauper children soon led to an epidemic of disease. In 1796, the attention of the public was directed to the evils. This was done thru the labors of Doctors Aiken and Percival who had been appointed to investigate them.⁴ The report they made empha-

³ *The state in its relation to labor*, by W. Stanley Jevons (London), p. 53.

⁴ *Hansard's Parliamentary debates*, third series, vol. xvii, p. 85.

sized so strongly the evils of the factory system, so far as it related to child labor, that Sir Robert Peel, in 1802, introduced a bill in Parliament to remedy them. The bill became a law. It is known as the "Health and Morals Act." In addition to providing better sanitary conditions in factories; better clothing for apprentices; fixing the number of hours of labor each day, and with some exceptions prohibiting entirely night work, it made provision for the instruction of all apprentices in reading, writing, and arithmetic.⁵

Thus it is seen that in little more than a decade of years after the establishment of the factory system in England, legislation was required for the removal of evils that had followed it. In New England there was the same tendency to establish factories. This tendency differed from that in England where there was greater capital and more skilled labor only in degree. Both manifested the same spirit. As early as 1785 Boston formed an "Association of Tradesmen and Mechanics."⁶ Four years later Providence founded its "Association of Mechanics and Manufacturers" for "promoting of industry, and giving just encouragement to ingenuity."⁷

Another evidence that this tendency prevailed in New England is found in the establishment of a large factory in Boston in 1788 or 1789. This was for the manufacture of linen canvas. Besides this, Weeden says that "from 1785 to 1791 cotton was being introduced into the Southern States from West Indian seed, to meet the new demand for Northern manufacturers as well as for exportation."⁸ But the real development of the manufacture of textile fabrics began under the Embargo Act. At the end of 1807 there were but fifteen cotton mills in the United States. Two years later eighty-seven more had been built. In 1810 Gallatin made his report on American manufactures. He roughly estimated the total annual value of all manufactured products at \$120,000,000.⁹

⁵ Jevons, p. 54.

⁶ *Economic and social history of New England, 1620-1789* (Boston), by William B. Weeden, vol. ii, p. 847.

⁷ *Ibid.*, p. 850.

⁸ *Ibid.*, p. 851.

⁹ *History of the United States of America under the constitution*, by James Schouler (Washington, D. C., 1889), vol. ii, p. 298.

As in England, this economic development had its disadvantages. In both Massachusetts and Connecticut child labor was used. The children, however, were not so cruelly treated as in England before the "Health and Morals Act." They never were slaves in any sense; but the practice of binding out was common, and this usually resulted in loss of educational privileges. This evil was so great in Connecticut that by 1813 the old compulsory attendance laws were practically a dead letter in many localities. But the spirit of old Puritan days was not extinct. Strong efforts were put forth to destroy the evil. In 1813 the General Assembly took up the matter. A law was passed that required the proprietors of manufacturing establishments to give attention to the morals of children in their employ and to provide instruction for them in reading, writing, and arithmetic. The selectmen of each town were made a board of visitors to ascertain annually whether the law was obeyed, and to report all violations to the "next county court."¹⁰

When the statutes were revised in 1821 this law was re-enacted and remained on the statute books until 1842, but it never realized the expectations of its friends. It had two defects. It contained no provision for school instruction, but merely specified that certain subjects should be taught. Thus the character of the instruction which after the teacher is the most important element in elementary education was left to the proprietors. The second defect was the want of a provision requiring towns under penalty to organize boards of visitors. Dr. Henry Barnard said of the statute in 1840, "It is a dead letter in nearly if not every town in the state. I know not of a single instance where the board of visitation authorized by the act has been organized."¹¹

A new act was passed in 1842. This forbade the employment of any child under fifteen in any factory, or in any other business, until he had attended "some public or private day

¹⁰ *Report of the Commissioner of Education, 1888-1889* (Washington, D. C.), vol. i, p. 486.

¹¹ *Public Acts Passed by the General Assembly of the State of Connecticut, May session, 1842* (Hartford, 1842), p. 40-41.

school where instruction was given by a teacher qualified to instruct in orthography, reading, writing, English grammar, geography, and arithmetic, at least three months of the twelve months next preceding any and every year in which such child shall be so employed." Violations were made punishable by a fine of twenty-five dollars to be paid into the treasury of the state. The evidence required that the child seeking employment had fulfilled the conditions prescribed was a certificate signed and sworn to by his teacher. Another provision fixed the hours of labor for all children under fourteen at ten. Any violation of this was made punishable by a fine of seven dollars for each offense.¹¹

This law was a marked improvement over that of 1813. If it had had the support of public opinion, there is little doubt but that it would have destroyed the evil at which it was aimed. But it did not have that support, and soon it practically became a dead letter. State Superintendent Daniel C. Gilman in his report for 1866, says of it: "In many cases the proprietors or agents of manufacturing establishments would willingly see the provisions of the statute sustained, but they are well aware that the law is not obeyed thru the state, and are apprehensive that they shall lose both parents and children as operatives if they refuse the latter work."¹²

An important amendment was made to the laws in 1855. Before this date no age limit had been prescribed. In the new law the General Assembly fixed the minimum age at which children could take service in factories at nine. The law was again amended in the following year and the minimum age fixed at ten.¹³

The law of 1842 with various amendments continued in force twenty-five years. In 1867 it was superseded by a new act

¹¹ Public Acts passed by the General Assembly of the State of Connecticut, May session, 1842 (Hartford, 1842), p. 40-41.

¹² *Connecticut school report*, 1866, p. 82-83

¹³ Third Annual Report of the Bureau of Labor Statistics of the State of Connecticut for the year ending November 30, 1887 (Hartford, 1887), p. 156. The English parliament, in 1819, fixed nine years and upwards as the age at which children could be admitted to labor in cotton mills. The same provision was made in the Althorp Act of 1833. *Hansard's Parliamentary debates*, third series, vol. xvii, p. 85 *et seq.*, gives a history of English legislation on this subject from 1802 till 1833.

which fixed the penalty for working children more than ten hours a day, or fifty-eight hours per week, at forty dollars. Half the fine was to go to the person who made the complaint and successfully prosecuted the case; the other half was to be paid into the town treasury.¹⁴

These various acts but partially remedied the defects of the act of 1842. In 1869 a new employment law was passed. This was by far the most important piece of legislation relative to child labor yet enacted in this state. The law of 1842 forbade the employment of children under fifteen years of age unless they had been in school three months of the preceding year. The new law changed this limit to fourteen. Just why this change was made is not clear. It may have been a concession to employers and parents to make the other provisions of the law which were more exacting than the law of 1842 seem less stringent. By the latter act only manufacturers, agents, and superintendents could be prosecuted; under the new act all employers were liable to prosecution. The penalty was a fine as originally, but it was increased from twenty to one hundred dollars. It again improved on the act of 1842, which required boards of visitors to examine into the execution of the law and report violations of it, when it required state attorneys and grand juries to co-operate with them. But still more important was the provision that authorized the State Board of Education to appoint one of its number or some other suitable person as agent to enforce the law.¹⁵ This agent was to be under the control of the State Board of Education at all times. The act of 1842 had left the execution of the law to local boards which at best meant that the law would be only partially enforced.

The most serious objection that could be urged against the act of 1869 was destroyed by a new law passed two years later. The act of 1869 took children out of factories, or kept them out if they had not yet taken employment. But it did not send them to school; this was the purpose of the law of 1871. The new law provided that all parents or guardians of children who

¹⁴ Public Acts Passed by the General Assembly of the State of Connecticut, 1866 to 1871 inclusive (Hartford, 1871), p. 119.

¹⁵ *Ibid.*, p. 333.

had been employed in factories or other business and had been temporarily discharged for the purpose of going to school should see that they were put into school. The penalty for non-compliance was five dollars for each and every week not exceeding thirteen in any one year.

This law with that of 1869 made a complete system of obligatory education for factory children. Many parents who were factory operatives regarded the new law as a species of class legislation and bitterly opposed it. Dr. B. G. Northrup, who was state superintendent when the act was passed, said: "The only objection made to this law, within my knowledge, is its limitation to the parents and guardians of those children *who are hired out*. They ask, 'while we are justly required to send our children to school, why are the parents of children unemployed, it may be the idle and vicious, excused?' This has the look of class legislation. Make this law impartial and universal in its obligation, and you remove the only real objection as yet urged against it."¹⁶ The opposition of the factory operatives had a good result. It was one of the factors that led to the law of 1872 which established obligatory education thruout the state irrespective of class.

Since 1871 the law has been modified several times, but the principle has remained the same. As it now stands "no child under fourteen years of age shall be employed in any mechanical, mercantile or manufacturing establishment." "No minor under sixteen shall be employed" in such establishments "more than ten hours in any day, except when it is necessary to make repairs to prevent the interruption of the ordinary running of the machinery, or where a different apportionment of the hours is made for the sole purpose of making a shorter day's work for one day of the week." If the child is illiterate he must be at least sixteen before he can take such service, and then "cannot be employed except during school vacation" unless he attends an evening school or "complies with other educational requirements."¹⁷

Legislation on this subject did not begin as early in Massa-

¹⁶ Report of Commissioner of Education, 1881-89, vol. i, p 487.

¹⁷ General Statutes of 1902, ch. 130, 132, 273.

chusetts as in Connecticut. The first Massachusetts act was in 1836. The immigration of a manufacturing and a foreign population had destroyed the former homogeneity of the people. Where formerly there had been unanimity of thought and action in the solution of educational problems there were now many differing opinions. Society was divided into sects and classes, not all of which espoused the cause of popular education. Some indeed antagonized it. The system that had answered the needs of the commonwealth almost from the day of its first settlement began to lose its vitality. It was seemingly unable to deal with the problem. In 1834, alarmed at the condition which confronted it, the state made provision for a public school fund; and two years later passed the act to which reference has been made.

The law was approved by the governor April 1, 1837. It provided that no child under fifteen years should be employed in any manufacturing establishment unless he had attended some public or private day school kept by some qualified teacher at least three months of the twelve immediately preceding the year in which he was employed. Employers who violated this provision were liable to a fine of fifty dollars which was to be paid into the town treasury for the use of the schools.¹⁸

This was a more advanced step than Connecticut had yet taken. It cannot be said, however, to have been a much greater one than England had taken in the Hobbhouse and Althorp Acts of 1825 and 1833. The first of these made a thoro restriction of the labor of children under sixteen years of age and provided for a "quarter-holiday" on Saturday. By the act of 1833 the education of factory children was made compulsory. Children were not to work more than nine hours each day, and were required to spend two more hours daily in school.¹⁹

Massachusetts amended her act of 1836, in 1837 or 1838, so as to release employers from liability to punishment, in case

¹⁸ *Laws of the Commonwealth of Massachusetts*, 1836 (Boston, 1836), p. 950.

¹⁹ "It is said that this 'half-time' principle was quite accidentally discovered. Some means being sought whereby evidence should be available that a child was not working at a certain hour, it was suggested by Mr. Chadwick that presence in school would afford the best possible evidence," Jevons, p. 55, 56.

they were provided with sworn certificates that the children in their employ had attended school the length of time specified in the statute.²⁰ Horace Mann, who was Secretary of the State Board of Education from the date of its organization in 1837 till 1848, wrote earnestly of this law in his report for 1840. He urged the necessity of "limiting the greed of both heartless employers and unnatural parents."²¹ In 1842 legislation was effected that limited the hours of labor of children under twelve years to ten. This was a backward step, for the standard thus fixed was not up to that set by either the Connecticut law of the same year or the English act of 1833. The Connecticut law had limited the hours of labor of children under fourteen to ten.²² The English act went a step further and fixed the hours of labor for children between the ages of nine and thirteen at nine.

From this date until 1866 most of the legislation relating to obligatory education had reference to the truancy problem which had now become an exceedingly troublesome one. However, in 1865 an act was passed that required eighteen weeks of each year in school of all working children under twelve years, and twelve weeks of all between twelve and fifteen years. In this same year a resolution was passed by the legislature that authorized the governor to appoint a commission "to collect information and statistics in regard to the hours of labor, and the conditions and prospects of the industrial classes." Governor Andrew appointed such a commission in February of the next year. The commissioners first considered the education of the children. They said in their report: "A saddening amount of testimony has been brought before the commissioners concerning the frequent and gross violation of the law."²³ The commission favored the "half-time" system, and recommended the adoption of some plan that would

²⁰ Seventh Annual Report of the Bureau of Statistics of Labor of Massachusetts, 1876 (Boston, 1876), p. 264.

²¹ *Ibid.*, p. 267

²² Third Annual Report of the Bureau of Labor Statistics of the State of Connecticut for the year ending November 30, 1887, p. 156.

²³ Seventh Annual Report of the Bureau of Labor of Massachusetts, 1866, p.

lead to it, if it were deemed best not to adopt it immediately in detail. As an inducement to its adoption, the commission further recommended that where the "half-time" system was adopted, and carried out in good faith, the laws then in force pertaining to working children should not be considered binding.²⁴

The recommendations of the commission were never embodied in a statute. But the same year the report was made, the most important piece of legislation yet given to Massachusetts on this subject was enacted. Under its provisions no child under the age of ten could be employed in any manufacturing establishment. Between the ages of ten and fourteen, no child could be so employed unless he had attended some public or private day school for not less than six months of the year preceding that in which his employment would begin. The school too must have been approved by the school committee of the place where it was located. Anyone knowingly employing a child who had not had this school training was made liable to punishment by a fine not exceeding fifty dollars. The act made one other important provision. Children under the age of fourteen who were employed in manufacturing establishments under the conditions already specified were not to spend more than eight hours of any one day in labor. Parents and guardians were made responsible for any violations of this restriction, under a penalty of a fine not to exceed fifty dollars for each offense.²⁵

In the next year, 1867, another act was passed that related to the education and hours of labor of children employed in "manufacturing and mechanical establishments." This provided, as did the act of 1866, that no child under the age of ten could be employed in any manufacturing or mechanical establishment. Between this age and fifteen children could be employed only after they had attended some public or private day school under teachers approved by the school committee of the place where the school was located, for at least three months of the year preceding the one in which employment was taken.

²⁴ *Ibid.*, p. 273.

²⁵ Acts of Massachusetts, 1866, ch. 273.

They must also have resided six months in the state preceding the time their employment began. The school requirement was to continue every year until the age of fifteen, " Provided that tuition of three hours per day in a public or private day school approved by the school committee of the place in which such school is kept, during a term of six months, shall be deemed the equivalent of three months' attendance at a school kept in accordance with the customary hours of tuition; and no time less than sixty days of actual schooling shall be accounted as three months, and no time less than one hundred and twenty half-days of actual schooling shall be deemed an equivalent of three months." ²⁶ Two years later cities and towns were authorized to establish and maintain evening schools for children over twelve years of age. ²⁷

Since 1870 legislation on this subject has been much the same in principle as that embodied in the laws of 1866 and 1867. In 1873 at the same session when the new compulsory attendance and truant laws were passed, a new act was introduced to further regulate the problem of child labor. But it failed to pass. It was offered in the next two succeeding sessions without avail. In 1876, however, it became a law. The principal feature of this law was that it made previous legislation on this subject apply to mercantile as well as to manufacturing and mechanical enterprises. This was done because of the large number of small boys who had taken employment in the large retail stores as cash and errand boys. ²⁸ The essential difference between this statute and those of 1866 and 1867 was that it applied to children between the ages of ten and fourteen, whereas in the latter statutes the age limit was from ten to fifteen years. These latter laws had been modified by the compulsory law of 1873. This had extended the time of required school attendance to twenty weeks. ²⁹ This provision was likewise extended to the new law.

²⁶ Acts of 1867, ch. 285.

²⁷ Acts of 1869, ch. 305. There was further legislation on this subject in 1872. See Acts of 1872, ch. 86. In 1883 the support of evening schools was made compulsory in towns having ten thousand inhabitants.

²⁸ Reports of Commissioner of Education, 1888-89, vol. i, p. 475.

²⁹ *Ibid.*, p. 474.

The next law was passed in 1888. This prohibited the employment of any child under thirteen years of age "in any factory, workshop, or mercantile establishment." Neither could such child be employed in any indoor work, for wages, during the hours when the public school of the place of his residence were in session unless he had attended school "for at least twenty weeks as required by law." Children under fourteen years of age could be employed in factories, workshops, or mercantile establishments only during the vacation of the public schools of the place where they resided, unless the employer kept on file an "employment ticket" and an "age and schooling ticket." The former ticket gave a description of the child to be employed, and contained a declaration of the employer's or agent's intention to employ him. The latter was a sworn statement made by the father, mother, or guardian of the child as to his age and to the effect that the requirements of the law as to schooling had been fully satisfied.³⁰

The present law retains the provision for the "employment ticket" and the "age and school ticket." The school requirement is made to apply to all children between seven and fourteen. In connection with this is a provision to the effect that, "Whoever induces or attempts to induce a child to absent himself unlawfully from school, or employs or harbors a child who, while school is in session, is absent unlawfully from school shall be punished by a fine of not more than fifty dollars." The hours of labor of all minors under eighteen in manufacturing, mechanical, and mercantile establishments are not to "exceed fifty-eight in a week." This, however, is not to "apply during December to persons who are employed in shops for the sale of goods at retail."³¹

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³⁰ *Labor laws of Massachusetts* Compiled by Horace G. Wadlin, Chief of the Bureau of Statistics of Labor (Boston, 1890), p. 67-79

³¹ Revised Laws of 1902. Ch. 54, 106

VII

BOSTON SCHOOL ADMINISTRATION

The small school board is coming to be the rule in the large cities of the country. Boston is the latest municipality to swing into line. St. Louis, Cleveland, San Francisco, Baltimore, and Washington have all within the past fifteen years gone upon such a basis, while Philadelphia, Cincinnati, Detroit, and Pittsburgh are examples of cities at present awakening to the realization of the need of such reform. Philadelphia may be said to have made a slight gain in the recent legislative act (1905) reducing the number of the central board from forty-two to twenty-one, but the chief evil, that of sectional boards, remains untouched. The real reform measure calling for a single board of seven was defeated.

In the prospectus of the National Municipal League (1905) one reads the following: "The frames of government of our cities need readjustment to modern conditions." The small school board may justly be stated to be one of the most valuable applications of the principle of readjustment. It is but one phase of the effort to remedy the far-reaching evil of trying to make a crude system of representative popular government fit the highly complex needs of the modern large city.

The small school board idea, however, grows too slowly. To the mass of the people a reduction of the school committee means a loss of the democratic principle. The question submitted to referendum is very liable to defeat. Such was the case recently in Haverhill, Mass., when a legislative act authorizing a small school board was submitted to the voters. On the other hand, a small school board once in operation is soon fully established in the confidence of the people, and there is no thought of going back to the discarded form.

The history of the recent overturn in school administration in Boston brings out fairly well the ordinary course of events.

The measure to be outlined in this paper is the so-called "Storow Bill," which provided that the then constituted elective board of twenty-four should be superseded by an appointive board of five. The appointive feature was subsequently abandoned for the elective type, in which form the bill became a law, going into operation January 1, 1906.

In the preparation of the bill under consideration a canvass was made of the conditions at present existing in the fifteen largest cities of the United States, all cities which had conditions in any way analogous to those of Boston. While previous investigations ¹ had outlined much of the groundwork on which the movement was built, it was felt that additional and more recent data were desirable. The accompanying tables show the results obtained as the result of a "questionnaire" sent out to the cities upon the list. In each case the questions were asked of the mayor of the city, of the superintendent of schools, and of several resident citizens of recognized ability and fairness. The answers received were as a rule frank and illuminating. In no instance was the evidence greatly conflicting.

The second table contains a grouping from which some of the strongest arguments of the Storow Bill were drawn. Note the classification of cities under the Large Elective Board group. All the evidence available from these cities showed that the large elective board is weak in constitution, in effectiveness, and generally in personnel. Every city investigated possessing such a system is seeking reform, and reform in most cases is prevented by corrupt partisan politics.

Some other pertinent facts gathered in connection with the above tables may be stated briefly as follows. New York City seems to be satisfied with the appointive method, but there is some sentiment that the present board is too large. However, much of the large board evil is obviated by the device of having an executive committee of fifteen which does most of the routine work of the full board. The two sets of figures in the case of Philadelphia and Pittsburgh are due to a system of central and sectional boards in each place. Buffalo in a strict

¹ Rollins, "School Administration and Municipal Reform." Report of Committee of Fifteen.

TABLE I.

Cities	Popula- tion 1900	Date of School Charter	How Chosen	Term of Office (years)	No. of Mem- bers	Chosen at large or by Wards	Evi- dences of satis- faction.
New York	3,437,202	1902	Appointed (m)	5	46 (15)	Boroughs	Yes
Chicago	1,698,575	1891	Appointed (m)	3	21	At Large	Remarks
Philadelphia	1,293,697	1818	Judges of the Ct. Com. Pleas Part Elected	3	502 42 ²	Ward	No
St. Louis	575,238	1897	Pop. Election	6	12	At Large	Yes
Boston	560,892	1875	Pop. Election	3	24	At Large	No
Baltimore	508,957	1902	Appointed (m)	6	9	At Large	Yes
Cleveland	381,768	1892	Pop. Election	2	7	At Large	Yes
		1904 ³					
Buffalo	352,387	1892	(peculiar type explained below)				Yes
San Francisco	342,782	1900	Appointed (m)	4	4	At Large	Yes
Cincinnati	325,902	1904	Pop. Election	3	31	Ward	No
Pittsburgh	321,616	1856	Elected by sub- district board	3	234 29 ²	Ward	No
New Orleans	287,104	1888	App. by City Council and Government	4	20	12 by Ward, 8 At Large	No
Detroit	285,704	1889 ³	Pop. Election	4	17	Ward	No
Milwaukee	285,315	1897	App. by School Board Commrs	3	23	Ward	No
Washington	278,718	1900	Commrs. of D. C.	7	7	At Large	Yes

TABLE II.

Cities	Members	Date
	<i>Appointive Boards</i>	
New York	46 (15 ²)	1902
Chicago	21	1891
Baltimore	9	1902
San Francisco	4	1900
Washington	7	1900
	<i>Small Elective Boards</i>	
St. Louis	12	1897
Cleveland	7	1892 (1904)
	<i>Large Elective Boards</i>	
Boston	24	1875
Philadelphia	502 (42)	1818
Cincinnati	31	1904
Detroit	17	Modified in 1880
Pittsburgh	234 (29)	1856
	<i>Unusual or Composite Types</i>	
Buffalo	None	1892
Milwaukee	23	1892
New Orleans	20	1888

² Central Boards.³ Modified at that date.

sense has no school board. There is a board of five which has an examining function but does not possess the powers and rights of a school board. The superintendent of schools is the school board in Buffalo. San Francisco has a small board which has received some criticism, but this criticism is not directed towards the size of the board, but towards its constitution. The board is bi-partisan and paid. Chicago has some strong and reputable supporters of the present system, but Carter H. Harrison recommends a reduction from twenty-one to eleven.

The small board, whether elective or appointive, works well. There is no evidence to show that one type is better than the other. There is nowhere discoverable any intelligent tendency to enlarge an established small board. Buffalo, with no school board, evinces no desire to possess one. In the presentation of these data it is not claimed that any hitherto undiscovered conclusions are presented. The facts stated here are but confirmatory. Every canvass of the question has brought substantially the same result.

Now the evils of large school boards, clear as they are to any impartial investigator, do not readily get into the popular consciousness. The average citizen has patriotic prejudices against changes affecting administrative machinery. He will suffer change, as a rule, only in one of two events,—when the system has become so bad that some particular incident becomes a public scandal, or in a period of reform when radicalism becomes the fashion. It is to be devoutly hoped that the present year of reform may be of advantage to school systems yet needing revision.

The present achievement of Boston was not due solely to one or the other of the conditions just mentioned. Just what factors were responsible cannot be adequately set forth within the brief confines of the present article, but they can be roughly outlined.

The act incorporating the City of Boston in 1822 provided for a school committee of twelve members. In 1832 the number was raised to twenty-six. In 1851 the committee was again enlarged, so that seventy-eight was the result. The next

change in the size of the committee came in 1865, when ninety-eight members made up the board. In 1874, when several outlying suburbs were incorporated into the city, the total number was raised to one hundred and sixteen—the culminating figure. In 1875 the number was reduced to twenty-four, which system persisted until the recent change went into effect.

Marked as was the reduction in 1875, the resultant board had nevertheless passed beyond its period of efficiency long before the present change. The best arraignment of the system just passing was made by Mr. J. J. Storrow, the author of the present measure. The following extract is taken from an address made before a legislative committee when the matter was up for consideration. The quotation will serve the double purpose of showing the evils of the past system and the virtues hoped for in the present. As Mr. Storrow was a member of the old board and is now chairman of the new, his own point of view is doubly valuable.

“The speeches, instead of being sincere efforts to enlighten the Board, are frequently mere partisan attempts to interject politics into a matter which should be decided on its educational merits.

“The Board is organized as tho it were a legislative and not an administrative body, when in fact its business is not to pass laws, but to deal with administrative questions.

“The president is placed high above his fellow-members in an imposing rostrum; the twenty-three members are grouped about in horseshoe form, each sitting at his legislative desk as tho he were a member of Congress. Nothing is ever said in a conversational tone. Many of the speeches are typewritten beforehand, and intended not for fellow-members of the School Board, but for the press and the gallery.

“Another thing that would soon strike a new member of the School Board is the fact that, altho he may be faithfully attending the meetings of his five or six sub-committees, yet he can never really grasp the school business. This is the inevitable result of the system; for, altho he may wear himself out in attending all the meetings called by the five chairmen of his five sub-committees, yet there are twenty-four other committees

grinding out business and putting things into operation without any notice to the Board, or else rushing matters thru the Board after an incomplete explanation.

"I think you gentlemen can see that we have here a system which is bound to give bad results. It is autocratic, and not democratic: practically all the power of the Board is exercised in private behind closed doors by three people. The superintendent is not present, much less the other members or the general public. Business is so split up and sub-divided that an honest and efficient member is practically helpless, because he can only watch less than one-fifth of it. The public meetings of the Board furnish but little protection, because a large part of the business never gets there. What little does, if it does not pass thru with the avalanche of votes taken at every meeting, is only discussed in formal speeches, which are intended to attract attention rather than enlighten, and be sensational enough to secure a headline in the next morning's paper rather than change the conviction of fellow-members.

"Now the present bill provides for a committee of five. The idea is that there shall be no sub-committees; that all business shall be transacted at meetings of the Board; that the public shall have the right to be present; that the members shall sit around a small table and discuss matters in a conversational tone, rather than exercise their oratorical powers in formal speeches addressed to 'Mr. President,' the newspapers, and the gallery.

"But it is contended by some of the opponents of this measure that twenty-four members of our present school committee are as busy as they can be and that, if we reduce the number to five, they will be overwhelmed with business and unable to perform all their duties. Now that, instead of being an argument against a board of five, is another reason why we advocate the number. The members of the present committee are all the time usurping the functions of the superintendent and supervisors, and constantly interfering with the smooth running of the system. We want a school board which will act in a critical and supervisory capacity, but not to take the running of the schools out of the hands of the officials who are

paid for it and can do it much better, because it is their profession for which they have been especially educated, and an occupation to which their life work has been devoted."

In the catalog of factors affecting the bill in question it is necessary to speak of prejudices, racial, social, religious, at work influencing popular judgment. The setting of Boston School Committee affairs, past and present, cannot be clearly viewed unless one looks frankly at the situation. It is safe to state that in most communities of the country one may best gauge the pressure of prejudice by the constitution of school boards. It is strange that this fact should be so largely ignored by educational writers.

First, the race factor: The Irish famine of 1846 brought the first influx of a new race into Boston's population. For the next ten years, the number of Irish coming in was large. The Irish in Boston to-day are for the most part the second and third generations, and form the largest single racial element. Next in number, and in the following order, are the Americans, who are the descendants of the early settlers, Italians, Jews, British-Americans, British, Russians, negroes, Poles, and Portuguese. With respect to racial, political, and religious conditions the changes that have taken place since 1846 may be summed up broadly as follows. The dominant race has changed from the English-American to the Irish-American. The Republican party has been superseded by the Democratic party. The Roman Catholic faith has the largest body of adherents, where Protestantism once held the whole body of inhabitants. The control of city affairs has passed from those of wealth, acquired or inherited, to the non-property-holding class. A glance at the facts respecting the nationalities in control in the year 1905 shows that the Mayor of the city, nine out of thirteen aldermen, the large majority of the common council, were of Irish or Irish-American descent. In the school committee of twenty-four, thirteen were of this parentage, three of Jewish origin, one bore an Italian name, seven were of "Yankee" stock, and one was a German. Herein one may see the force of the demand for race representation and how closely the ratio is preserved. Cleavages of this kind illustrate the evil

of malassimilation and the exaggeration of artificial distinctions.

The Irish have received in the past no little provocation to tempt them to organize for protection and control. When the first of this race came to Boston religious toleration was written in the constitutions of the national and state governments but not in the hearts of the inhabitants. The well-known example of the Know-Nothing movement back in the fifties is a striking proof of this statement. There is no more notable instance of unconscious irony than in Mrs. Hemans' lines on the early Puritan which read:

"They left unstained what here they found,
Freedom to worship God."

Not a little of the early animosity against Quakers and witches was later exhibited against the Catholic immigrant. The A. P. A. movement of only fifteen years ago showed a revival of these same fires of intolerance. The spirit of intolerance on the one hand and the deep-rooted resentment on the other have been and are to-day in a much less degree the cause of much suspicion and dissension. There is a sort of rude justice in this "irony of fate" which reversed the tables of race predominance in Boston. It is indeed an historical repetition of a Rome conquered by the barbarian she was wont to despise. The connection between this seeming digression into the racial factors in Boston and the school change under consideration will be made clearly evident in the latter portion of this article.

Next in importance as a factor bearing a relation to the matter at issue may be considered the chief organization having as its object the reform of school administration. I refer to the Public School Association or, as it is popularly known, the P. S. A. A sketch of this organization has already been presented in the columns of this Review (December, 1904). It is helpful, however, to present additional and subsequent phases to illuminate the relation of this body to the recent reform measure. In 1894 a special committee of interested citizens organized themselves into a band whose purpose was to elevate the position of the superintendent of schools. This idea

subsequently expanded into the afore-mentioned organization, having as its platform and basic principle of reform the elevation of the dignity and powers of the superintendent and the extension of the scope of the educational expert as represented by the supervisors and masters of school districts. The P. S. A. movement early attained a considerable degree of success. In the ranks of its workers and sympathizers were many of the best citizens, who had the interests of the schools at heart. But the P. S. A. influence steadily declined after 1902. In the fall of 1903 they lost their majority in the school committee. Early in 1904 the new committee proceeded to undo some of the work of the P. S. A. The election of teachers was returned to the jurisdiction of the division committees, and the superintendent, who had been previously "elevated," made a most rapid descent, until in June of the same year he was unceremoniously turned out of office.

The failure of the P. S. A. to hold its prestige was not necessarily a matter of fortuitous circumstance, nor was it an indisputable indication of degeneracy on the part of the electorate. There was a marked lack of genius displayed on the part of the workers in the earlier years of the organization. The very name, P. S. A., was an unfortunate venture from its similarity to the monogram of that notorious and obnoxious body known as the A. P. A. It did not take much of a stretch of the imagination to conjure some similarity of purpose between the two, a point which politicians were quick to seize upon. In the defense of the work of the P. S. A. referred to above is found this statement, "It (P. S. A.) was intended and consistently continued to be absolutely non-partisan and non-sectarian." The evidence available does not confirm the truth of this statement, especially the latter claim. The organizers may have intended to make the association non-sectarian, but their intention cannot be taken for the fact itself. The P. S. A. up to within two years associated and co-operated with a body known as the Independent Women Voters, an anti-Catholic society pure and simple, who form to-day the inheriting and perpetuating class of Know-Nothing and A. P. A. principles. When associated with the P. S. A. these voters were accustomed to

reject the Catholic names on the ticket. More than once they proposed as their own nominees individuals who were suspected anti-Catholic agitators. They waved the American flag over it all, and shouted, "America for the Americans." The P. S. A. confessed their error by repudiating the support of the I. W. V. in the campaign of 1904, and elected as a result more candidates without their support than in the year previous with it.

Another instance of the fact that the P. S. A. was not essentially non-sectarian appears in this—that out of eight of its early nominees, only one or two were Catholics. In the face of an unavoidable issue, this compromise seemed grudging and unfair. With each succeeding year the nomination of a larger proportion of Catholics induced the conclusion that the P. S. A. had been forced to an unwilling capitulation. When the new bill was under discussion, at any rate, the bulk of the Catholic voters, rightly or wrongly, looked askance at the P. S. A.

So much for the setting in which one must view the present successful attempt at school reform in Boston. As just pointed out, prejudice has been the chief bane to harmonious co-operation of the various possible powers of good. It was an obvious necessity that the measure should be guarded from all appearances tending to give occasion for criticism. To keep this policy meant a watchful eye. Breakers could be seen from almost every point of the compass. The movement could not be a P. S. A. scheme because any project from that source would be discredited. It could not be a Back Bay enterprise because that would be a try for control by the aristocracy. It could not be a Republican essay because Boston is a Democratic city. It could not be a Democratic plan solely because the measure was to be passed upon by a Republican legislature. Finally, it could not be a non-partisan notion because political leaders were fearful that it might be the entering wedge for a general non-partisan movement. This process of elimination did not leave many alternatives for consideration.

By a fortunate stroke the movement was launched as a one-man project. James J. Storrow was the man. The choice was fortunate in many ways. The faults of the visionary reformer, the conceits of the impracticable

theorist are not his. Mr. Storrow is a Democrat, hence of the dominant political party. He had assisted in the councils of the P. S. A., hence enlisted the good-will of that already organized reform party. As a man of wealth and social position he commanded the confidence of the upper classes. As a successful business man, business interests deemed him safe. As a man of recognized integrity and broad philanthropy he commanded the attention and respect of a wide circle of right-minded, well-meaning citizens of all classes. It is safe to say that a wiser move would be hard to conceive. The surmise is not unjustifiable that no association, no party, no other individual could have been more fortunately chosen to champion this cause. Justice would demand that there be mentioned here the activities of a dozen or more individuals who were stalwart supporters of this cause, but the limitations of space forbid. Perhaps the greatest mark of wisdom in the furtherance of the project was the keeping of ill-timed altho well-intentioned enthusiasm in the background. Women's clubs, Back Bay organizations, Public School Association, Good Government Association,—none of these were sought as champions of the scheme, tho the support of any or all of them was welcomed when it came voluntarily. Without doubt the attempt of any of these sources to take the lead in the matter would have so stirred the forces of popular prejudice that the project would have been dropped as inexpedient.

The measure was put before the public in January, 1905. A petition was circulated which from the character of the names was a weighty list. Every living ex-Mayor of Boston, with one exception, appeared thereon. It was a representative list as well, comprising men of prominence and influence of every rank and race. The plan of the campaign was simple, purposeful, and judicious. All efforts were directed towards putting the provisions of the bill in the most favorable light towards the public, the press, the legislators, and organized bodies of every kind. One of the anomalies of the campaign was the support which the measure met from a controlling portion of the Democratic machine. Reform measures as a rule are not so fortunate as was the bill in question. One rea-

son for this was the fact that the school committee personnel had been deteriorating steadily of recent years. The number, twenty-four, corresponded nearly to the twenty-five political wards of the city, and resulted largely in a ward system of representation. The constant and growing dissatisfaction with the state of school committee administration, expressed in the criticism of the press and agitated by the increasing energy of reform parties, had created a general uncomfortable situation which was becoming wearisome to the machine responsible for the majority representation upon the Board. The machine gained nothing by the system, and when this favorable opportunity came of gracefully unloading, did so with a sense of relief. The machine, however, did not attempt to create a unanimity of policy. There were large defections which succeeded in making considerable opposition.

The legislative hearing in March (1905) before the Committee on Cities brought out very clearly the positions of the opposing parties. The appointive feature was selected as the vulnerable point of attack. The women's organizations in particular were strongly represented. The measure from its nature would disenfranchise the women, and thus the only result of many years' struggle would be swept away. Most distinguished among the champions of the women's interest in the bill was Mrs. Julia Ward Howe. The P. S. A. opposed the bill in its appointive form, but were willing that a change should be made, provided the resultant Board be elective. Several members of the present school committee opposed any change whatsoever, claiming that the present system was the best possible, and offered in testimony of the efficiency of the Boston schools the fact that the St. Louis Fair had awarded gold medals to the school exhibit.

The sentiment of the hearing was undoubtedly opposed to an appointive school board. The liberty-loving traditions of Boston apparently subverted by the measure, and the opposition to the loss of franchise for the women, conspired to show the impossibility of the appointive plan. In consequence the amendment was accepted that the Board should be elective, and as a

result the bill immediately received the support of many previous opponents.

The appointive feature, however, served the valuable purpose of drawing the fire of the irreconcilables. Much of their eloquence and vehemence had spent itself in battering down this lurking and seemingly vital stronghold of the measure. The waving of the American flag, the allusions to the glories of the Declaration of Independence, as well as to the provisions of the Constitution, while irresistible shafts when flung against the appointive feature, were found impotent indeed when directed against the measure in the new citadel. There were discoverable no inalienable rights of man (nor of woman) which were endangered by having a small school board elected by the people to administer to the needs of the Boston school system. Not wholly daunted, the opposing forces remaining sought to find justification for objection to a small elective board. It was pointed out that a small board would be owned completely by the book companies, that such a small number would be a close corporation, and so on. The labor organizations brought forth the argument that small bodies are unfriendly to the cause of labor.

Despite all opposition the bill was favorably reported. The main provisions of the act were that the number should be five, the term of office three years, the method of choice by popular election, and that all rights, duties, and privileges of the large board should succeed to the small.

The bill was introduced into the House and passed thru two readings by large majorities. Previous to the third reading a very strong movement was made to attach a referendum amendment. Here was the crisis of the movement. The enemies of the measure had reserved this stroke for a final assault. Had they succeeded, it is doubtful whether the cause could have been carried at this time. The referendum would have committed the measure to the forces of prejudice, not of reason.

Representative McDonald, the legislative champion, presented some very cogent arguments against the referendum which undoubtedly caused its defeat. He showed that the

movement for the proposed reform was the result of some years of thought and inquiry; that it had involved a careful canvass of the country as to other systems and as to the opinions of educational experts; that the ordinary voter had not the means of knowing the question in its larger relations and the issues at stake.

The vote was close, 95 voting against the referendum and 87 for. No other obstacles were encountered and the bill, when presented to the Governor for his signature, was promptly signed and the cause was won.

The press of the city greeted the new law with unqualified approval. Interviews published with members on the retired board showed as a rule striking disapproval. While the reasons were varied, they all illustrated the maxim that "Privilege dies hard." The labor unions proved least reconciled to the new law, and sent a committee to wait upon the Governor to ask him for the reasons of his approval. The Central Labor Union subsequently passed a vote of censure upon Governor Douglas for his sanction of the school bill.

How the new school board was elected, what forces were active, what the present prospects are for genuine reform in school committee administration can only be touched upon in conclusion. The school campaign just passed can be rightly said to have been unique and the most encouraging in the modern municipal history of Boston. The result was contrary to what former conditions and precedents made probable, and in excess of what optimism could expect. The anomalies were many. The mayoralty contest was hot and complicated; party lines were strictly drawn; prejudices of all kinds were preyed upon. But in the school campaign all was different. There were exhibited such affiliations of interests as to lead all to believe that Boston can be in the strictest sense a *community*. Political parties got together. Reform parties showed an unusual amount of common sense in addition to customary enthusiasm. Three of the Democratic candidates were on the Republican slate; the Public School Association indorsed the Republican ticket as it stood.

The alembic for this condition of affairs was an entirely

new body of school board reformers known as the Citizens' Union. There is a lesson for other communities in the brief history of this body. The farsightedness of several public-spirited citizens told them some new force for school reform should be sought. The justification for this wisdom has already been set forth. Accordingly, a mass-meeting of citizens was called in one of the theaters. Speakers were invited to make addresses upon the good of the schools and upon the unusual opportunity presented for electing an entirely new board. The sentiment of the meeting, which was well attended and enthusiastic, crystallized into the purpose of persuading both the political parties to nominate good men. A committee of fifteen was chosen whose duty it was to wait upon the leaders of the parties to urge upon them the importance of putting upright and able men upon the school tickets. The constitution of the special committee was excellent. Men of all parties, races, creeds, classes, were represented. They had no direct connection with any parties or affiliations open to suspicion. Hence they dispelled old prejudices, and a wholly new confidence was the result. Success crowned their endeavors from the beginning. They did not seek to dictate; they did not preach; they simply demanded the one irreducible minimum of reform, namely, good men. And the parties listened. Not a single man against whom it could be said that there was reasonable cause for rejection was nominated by either major party. Mr. James J. Storrow, the author of the school bill, was a nominee on every ticket, and his subsequent election by a large majority may be looked upon as an approval by referendum of the change of school administration.

School board reform for the first time became a majority sentiment. "No Axes to Grind, No Debts to Pay," was the terse and sincere headline given to the public announcement of the Citizens' Union indorsement of candidates. The Citizens' Union did not discriminate between good men of different parties. Their object was not "who" but "what." As a matter of fact, they indorsed all the candidates of both the parties. In their public appeals they asked for the support of any five out of the seven different party candidates in the

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field. They did oppose the candidacy of some four or five persons running independently whose records had been investigated and repudiated by the party slate-makers. The effectiveness of this plan of reform is best attested by the result. It is generally conceded that the best five of a good seven were elected. The two nominees who had only the regular Democratic nomination were beaten, whereas the City itself went Democratic as usual.

The Board as elected is ideal in composition. It is made up of good men and is splendidly representative. At the time of writing the régime has been in control but five weeks, a period too short to show large results. Already, however, the new Board is receiving praise for several new important policies inaugurated. Longer terms of office (six years) for superintendent and supervisors, economy of expenditure without loss of efficiency, a juvenile court for youthful offenders—these are types of problems already in the process of adjustment.

The specific lessons that can be learned from the recent school-law change in Boston may be summed up briefly as follows: They are two in number, the important part which a single individual may perform in bringing about reform, and the necessity of common sense in reform bodies.

It is evident that the matter of leadership is the crux. Reforms are conceived, begun, guided, defended only by the leader. The leader is the only fulcrum by which the world of civic unrighteousness may be forced from its orbit. The national aspect of the problem shows how ready the people are to rally around the true leader. The community is yet to be discovered which has lost its sense of shame.

VIII

DISCUSSIONS

THE MANUAL ARTS IN THE CITY OF NEW YORK

The recent progressive administration of the New York public schools, under Dr. Maxwell, has attained a great deal and pointed out the way to much of the highest value in education. Nowhere is this progress better manifested than in the stand that has been made for manual training, not only in the primary and grammar grades, but also in the secondary schools. There are now two magnificent manual training high schools in New York, and yet Dr. Maxwell encouragingly enough proposes in his last annual report, not only to use these schools as evening trade schools, and thus reach a large number of the young skilled workmen of the city, but recommends that some manual training apparatus be installed in all high school buildings. "It is not," says he, "in accord with sound educational doctrine to have either boys or girls without some practice in hand-work—some practice in adapting material to definite purposes—for the space of four years."

A policy of this kind is the most effective and reasonable reply to those who hark back to the days of the blue spelling-book and the little red schoolhouse, forgetting that these were parts of an unconscious system, in which the manual training of the farm or village home, and the nature study of daily contact with woods and fields, bore a vital and indispensable part. The present temporary disquiet, which sees lack of initiative, lack of resourcefulness and executive power widespread among our pupils, and which often mistakenly attributes these deficiencies to the kindergarten, to play-methods or to the doctrine of interest, is best treated by a wise advance in the spirit of the times, rather than by an impossible retreat in the teeth of an opposing civilization. Manual training in our cities has become not only a logical but a practical necessity, the only ques-

tion is, what are the particular functions it shall fulfill, and how is it to be related to other subjects. In the city of New York manual training, from the lowest grades up, includes the study of drawing, and both are taught by the same special teachers and put under the same supervisors. This is a great gain for both studies. The drawing becomes mainly a means, rather than an end in itself, and with this important reform, successfully thought out and accomplished, the manual arts as a whole, as we shall see later in detail, more easily yield their services to the rest of the curriculum. In this relationship, far from degenerating into a narrow and commercial utilitarianism, they gain their best life in losing it—sunk in use, they become an essential in the work of the school.

Last June it was my good fortune to see and study some of the evidences of this broad manual training policy at an exhibition held in the 19th School District under the direction of the Supervisor of Manual Arts of Manhattan and the Bronx. This, I understood, was but one of twenty such exhibitions given during the spring session, as object lessons and sources of inspiration for teachers and parents. Illustrative examples of the children's work were systematically and beautifully arranged in one of the fine new school buildings, filling all the available wall space from the lowest floor to the garret. The impression obtained was one of inner harmony of mental effort, an orderly evolution from the lowest primary grades with their richness of spontaneous effort to the better drilled and more organized successes of the older pupils. When, moreover, one reflected that not only the children of this district but 500,000 children thruout the city were receiving a similar training, the mere salutary size of the work of itself brought an access of faith in a rapidly approaching adequate and effective democratic education.

The new education differs from the old in making more demands upon its votaries. It represents a new graft upon the old tree of educational wisdom, and should absorb that which is essential in the past as well as add that which is necessary for the present. The New York Manual Arts Department has not forgotten to connect itself firmly with the past. There is no evidence that the work has been injected into the system

to stand or fall by itself alone. As might be expected from the organization of the department, one of the most striking general features of the exhibition is the way in which the work is shown to be related to the other parts of the course of study. The subjects which are treated are in a great many cases, perhaps the large majority, those which are already the subjects for study in language, literature, nature study, elementary civics, and science. Part of the inspiration of this work in correlation has doubtless come from the pioneer work of Colonel Parker in this field, and even a superficial glance thru the lower grades makes one feel that here is Parker's school over again, enlarged and better systematized. As an example may be taken the work in one third grade room where the story of Hiawatha forms the center of effort. The children knew the story well, and could give it, not only in their own language, but in the words of Longfellow. Around the room was a profusion of well-made diminutive tepees, canoes, baskets, ornamental head dresses, peace pipes, bows and arrows, and other articles illustrating the Indian life of peace and war. These were constructed of various materials,—bark, paper, wood, etc. On the walls were pictured illustrations of important scenes in the poem. Here the value of the previous construction work appeared. The tepees were drawn with a sense of their roundness; the pipes and baskets looked as if the artists thoroly understood them. The imagination was thus not overburdened with problems too difficult, but was made free to enter upon the characteristic features of picture-making, the dramatic intention, the composition, the handling of pigments, and the naïve beginnings of perspective. New objects of a more subtle character, perhaps never observed in reality, such as a mass of dark woods, a blazing fire, or a stretch of sea, were freely introduced with the natural abandon and astonishing success seen only with geniuses or with children. It was quite plain, not only that Longfellow had become more concrete and interesting, but that each child had built for himself with the work of his own brain and hands a habitation for his mind more important than any mere appreciation of the poem, and more lasting than any of the products which he had thrown off in the process.

In the higher grades the work shown was frequently correlated with the study of science; and here, since the effort was more elaborate, it was carried out in the manual training shops. To mention some instances, aquariums were made after designs carefully supervised by the instructor, for the purpose of facilitating the study of aquatic forms of life taken up in the school. The study of acoustics developed the need for a sonometer or for a rapidly rotating syren. A study of time measurement gave rise to a series of apparatus from the water clock and the simple pendulum, up to a more elaborate wooden timepiece, illustrating the principle of escapement. It is readily seen that when the science teaching makes use of the allied department of manual arts, it finds a great re-enforcement both in thoroughness and in interest.

Altho the thought of usefulness in some form or other was a constant preoccupation of all this work, correlation with other studies was not the only way in which this was gained. Connection with life itself was constantly in evidence. In the lower grades, the construction work, the designing, and the illustrating were found very frequently centering around the life of the street and of the home. Here, *e. g.*, was to be seen a series on transportation; wagons, street cars, wheelbarrows, etc., were made out of wood, little toys much more educative and less likely to be destroyed than those bought in the stores. Following the solid figures came the same objects cut out of paper and folded so as to stand up,—a more abstract variety of construction taking less time in manufacture, more easily manipulated and reproduced, and psychologically paving the way to the more imaginative forms of pure representation which naturally followed, resplendent in color and action. At this, the picture-making stage, the dramatic possibility formerly added to the object from the outside by the child's use of it, and hence limited in range, now becomes a corporate part of the product itself, and we have men and children shown as using the various means of transportation, taking trolley rides, wheeling baby or doll carriages, driving coaches or coal wagons, traveling ice cream vendors calling their wares, scissor grinders trundling their one-wheeled carts, each with its appropriate and sometimes recognizable background—in a word, all the varied panorama of the New York streets.

The equipment and furnishing of the interior of houses offered another of the many interesting series. Chairs, tables, beds, dressers, etc., etc., were treated in the same manner as above; type-models of a simple character first being used to train the child in the elements of structure. In the paper cutting and folding, for example, the child is first shown how to make a cube and, after this, forms such as chairs and tables. When he has made the table after the type model, he is encouraged to produce individual variations. Here his adaptation and inventiveness come into play. In many cases no two examples following the type-model were quite alike. In this series were shown some interesting interiors of flats, all the various rooms, paper on the wall, pictures hung, carpets on the floor, curtains, flower pots with paper flowers, put together by the children with the greatest taste and skill.

Altho usefulness in other studies or to the child at home or at play was the principal motive in the selection of centers, it must not be supposed that decoration was neglected. In following thru the different grades we see a distinct evolution in the sense of the beautiful. This was, however, always kept in its place as an incidental to other purposes. The somewhat dilettante motto, "Art for Art's sake," had evidently given place to a much broader one representing the æsthetic as an overflow or surplus rooted in something deeper than itself. Art for Life's sake tolerated no mere exercises in curves or designs, no impossible borders for Turkish mats that were never to be made or seen, no mere gymnastic spotting or voluting, no balancing of abstract schemes of color or notation, but always the real object, whether copybook cover, picture frame, letter holder, neck-tie box, menu card, or tray cloth, calling for a particular and individual æsthetic judgment in each particular case.

Perhaps still more characteristic of this exhibition than the principle of correlation or the subordination of the merely beautiful is the influence of child-study. The children have been viewed not as mere recipients of a course of study or material for administration, but as human beings with ideas of their own. Expression, as we have already seen, is constantly encouraged. The energy of the corps of supervisors and teachers

has been more largely spent in stimulating interest, awakening observation, provoking discussion of work done by the children, and thus helping them wisely to help themselves than in dictating work conceived by someone sitting in the arm chair of a distant office. Opportunity is given not only for the grade teacher to adapt, modify, and invent, but for the child also. The very complete and pertinent outlines issued for the guidance of supervisors and teachers are the result of their own discussion, and are accepted as suggestions rather than commands. The power to execute, so indispensable in life, is thus liberated and utilized. If it were not for facts to the contrary, it would seem impossible that manual training or an art department in any city could maintain its existence for a year without freedom of this kind for the subordinate teacher and the child. Authoritative and compulsory dictation is an interference in other school studies, but must be positively stifling in these.

Among the most useful and interesting contributions of the child-study movement have been the studies on children's drawing. Mr. Earl Barnes and Dr. Lukens have shown that children begin to draw as they begin to talk. Anything that will stand for an idea is produced and accepted. This is due, doubtless, to their breadth of classification founded on as yet imperfectly developed associative centers or apperceptive masses. A child thus has no difficulty in drawing the four walls of a house in one view, or two eyes in the profile of a human face. Even when he looks directly at the object he draws ideographs rather than pictures. This state of mind continues until about nine or ten when his discrimination becomes keener. From now on he gradually becomes able, not only to draw what he thinks he sees, but to see what he draws. At this point his earlier style becomes distasteful to him and his power of observation becomes so much better than his ability to execute that he very frequently drops pencil and brush altogether, or, if compelled to persist, works without interest or ambition.

The early stage of this child-study problem, as we have already noted, has been frankly and delightfully met by the department of manual arts. It is the latter part which demands more care. Two things are done. The early uncritical stage, altho allowed every scope, is constantly subjected to

stimulation with the hope of short-circuiting it and bringing in some criticism and some better execution a little earlier than could otherwise be expected. Secondly, from the fourth grade on, especial effort is made to focus the child's attention on the necessity for good workmanship as well as expressiveness, so that when he comes to the crisis, which as Stanley Hall suggests may represent in the child the culmination of a period of early maturity in a previously pygmy race, he finds himself equipped with a certain facility of technique with which to meet the new period of development upon which he is entering. The results seem to warrant the effort made. At least, there was certainly to be seen on the walls of this exhibition a steadily growing command of the power to draw accurately and readily, and in some cases with subtlety and distinction, as one followed the rooms from the lowest to the highest grade.

But of all principles governing this work, the most interesting because the newest, as well as the most vital, was that of community interest. This is already glimpsed at in as far as many of the centers chosen concern social life in the school, the street, and the home, altho this is but portraying such a life or looking at it from the outside. Expression, too, of any kind, involves a certain amount of the social spirit, but that which succeeded in carrying to the present writer the greatest significance of a socializing nature was the production of a considerable number of things not by the class as a whole or by individuals, but by groups. The constituents of these were chosen, or offered themselves in such numbers as would best facilitate the work to be undertaken. A foreman was selected and was responsible for the completion of the work and the disposition of minor details.

An understanding of the working of these groups would doubtless need more intimate acquaintance than that afforded by the work they produced. The details of how the groups were formed, whether the foreman represented real leadership of idea and socially organizing power, or whether he was simply a delegate of the teacher, are matters of the greatest importance for one interested in the broader question of education for citizenship. But the fact that manual training had spontaneously discovered that groups with leaders of whatever

kind were an advantage in supplying its own educational needs, is of itself a hint of the greatest value for many teachers who are looking for much fresh help in the teaching and management of their classes in a better understanding and a better application of the social forces at work in every natural human association.

It is evident, even from this very short and inadequate account, that we have in operation in the work of this Manual Training Department a very deep and comprehensive idea of education. As summed up or briefly condensed by Dr. Haney, the Director of the department (*Year book of the Council of Supervisors of the Manual Arts for 1901*): "Each subject admitted to the curriculum must be both developmental and socializing, and must have the element of reality. Unity of the subjects of the course is essential; it is dependent upon the directness and force with which each subject makes for the general aim.

"Methods of teaching are designed to give the child occasion and motive for all information sought; they aim to lead him to make personal adjustment, they seek their rise in his interests, and their end in his definite achievement. They would see all facts properly related and the curriculum as a whole co-ordinated by the development of subjects from common centers. Technical skill they would develop only in response to a realized need."

When principles of this kind do not end in statement but can be verified in the process and recovered in the actual product, we have largely solved the problem of administration, which like the soul cannot be separated, at least in this world, from the body to which it is indissolubly united, but must permeate it to every atom and draw back from it sustenance and power. Organic education, however, does not mean the mere equality of different factors or persons in the whole. It means rather their greatest possible differentiation, so long as this differentiation is governed by the solidarity of all. A monarchical or military organization of school systems or school departments is suitable only for times of strain and ought to be tolerated only at the beginning of things. Later on such forms of organization represent arrests of development which speedily

pave the way for complete decay. Organic education means life itself for every child and for every teacher. This is always the best preparation for life and results in the truest democracy.

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STANDARD LATIN AND GREEK GRAMMARS

In connection with the discussion, more or less current, of the place of Greek and Latin in our educational system, a word with reference to grammars may not be out of place.

The number of Latin grammars on the market is large and growing larger almost every year. They all have their good features, and if students used any one exclusively, they could hardly fail to gain a good working knowledge of the language. The transition, however, from the secondary school to college sometimes leads to a change of grammars, and then the student's troubles begin. But far more serious and more frequent than this is the confusion which arises, at least in the first years of college life, when part of the students have used one grammar in their preparatory work, and part of them another.

Ideally, freshmen in college should have such a complete knowledge of Latin syntax that little or no reference would need to be made to the grammar during the year; actually, however, it is a minimum knowledge that the average student possesses. If now every construction needing explanation were presented to the student in terms already familiar to him in part, the principle would be brought vividly before his mind and the impression be deepened. But the real situation is quite the reverse. In most colleges the Freshman class is composed of students from a wide area, from many high schools and academies. In one school Allen and Greenough's grammar was used, in another Bennett's, in another Gildersleeve's, in yet another Hale and Buck's, and so on thru the list. The professor may explain a construction according to Allen and Greenough's grammar. To all in the class familiar with that work the explanation is clear, and their grasp of the subject is made surer. To the rest the matter is entirely new; possibly they listen, possibly they play checkers. The professor may explain the point according to each grammar and so meet the

needs of all the students, but that method wastes the time of the class and cannot often be employed. Still further, this difficulty is even greater and more apparent in composition work, where there is need for drill in construction, and where in addition to a variety of grammars there is an ever increasing number of composition books, each of which tends to be an epitome of Latin syntax with principles stated lucidly but variously.

In Greek the situation, which for years has been simpler, is fast becoming the same. For more than a generation students have been trained in either Goodwin's Greek Grammar, or Hadley and Allen's. The possibility of "confusion worse confounded," or of a waste of time in the classroom was nearly at the minimum. Recently, however, at least two new grammars have been put upon the market and others are threatened. Furthermore, just as in Latin, the Greek first year books and composition books tend to be independent grammars. Should not a halt be called?

A remedy, somewhat as follows, the writer suggests. Could not all who have written Latin grammars, composition and first year books, or who are meditating such action, meet in a national congress to plan a standard Latin grammar? At such a congress the whole field could be canvassed, committees appointed, and work assigned. After a few months, or a year, there could be another meeting, the results be reviewed and arrangements for publishing perfected. A standard work constructed in some such way as this, and used thruout the country, would make for unity of impression and advance in the knowledge of the language on the part of a larger number of students than at present. In the years immediately following such a publication, scholars could present the results of their researches and advocate their respective views in classical and philological journals as at present, and then, at the end of five or ten years, a revised edition of the standard grammar could be prepared in practically the same way. This new edition might then be introduced in connection with first year classes in secondary schools, and so gradually supersede the old one. Another revision might be made after a corresponding term of years, and so on.

It may be objected, at the outset, that the differences between Allen and Greenough and those who follow their lead, and Gildersleeve and those who are nearest in agreement with him, are very vital, but in the interests of the language and of the students who now amid, as it would seem, needless difficulties wrestle with it, might not those differences be harmonized?

Objection to such a plan may also be made from the point of view of the publishing houses. What is to prevent their publishing what books they choose, and introducing them by those means already known to the trade? But if all interested in the production of Latin grammars are pledged not to take independent action, there will be no unauthorized grammars to publish. The work of publishing the standard grammar could be allotted to different houses, or some one house could do the publishing and the present book firms could be distributing agents with exclusive rights in certain sections of the country.

Then, too, it might be objected that the right of any Latin scholar to get out a grammar would be infringed. But if he has a good idea, he can enter the discussion in the journals and, perhaps, ultimately get it incorporated in a new edition of the standard work with consequent compensation. Far better this than the present babel.

It may also be argued that the present differences in grammars are good for the student. He learns not to depend upon any one source. He comes to compare grammars, and in consequence has a broader outlook upon the language. Not many students appreciate this opportunity when they have a long lesson in Livy, Horace, or Tacitus to prepare, with trigonometry, French or German, English, and several other subjects awaiting their attention. They are likely to use the grammar with which they are most familiar, and if on the following day the explanation given in the classroom has no points of contact with their previous knowledge, the whole matter remains for them an enigma. Until the later years of a college course, added facility in the use of the language and appreciation of its literature properly receive the emphasis. A comparison of views upon nice points of syntax may well be left

until the student takes up the intensive work of the seminar room.

That such a project as this is ideal, and that in many quarters it will be pronounced wholly impracticable, the writer is well aware. But if the present difficulties are real, and it would seem that they are too obvious to deny, and if a better mastery of the Latin language is one of the desiderata in classical circles, and if colleges and college work are always at least supposed to lay hold upon the ideal, why should not something of this sort be tried? In fact an approximation to this plan is already realized. Within the last few years Allen and Greenough's Latin Grammar has undergone revision. The men who had charge of this work might well have constructed a new grammar and so have increased, rather than have lessened, the confusion. They chose to revamp a standard work rather than to create one *de novo*. Why may we not hope, why should we not demand that this be done on a larger scale in the interest of the students and of the language itself?

Exactly the same plan could be followed in connection with the Greek language with equally good probable results. It is to be hoped that something of this sort may be made effective within the next few years.

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IX

REVIEWS

The making of English—By HENRY BRADLEY. New York · The Macmillan Company, 1904. vii+245 p. \$1.00 net.

Growth and structure of the English language—By OLFO JESPERSEN, Ph. D., Professor in the University of Copenhagen. New York : G. E. Stechert & Co., 1905. iv + 260 p. \$1.00 net.

These two books are held together not only by their general similarity of subject but more especially by their similarity in method. Both are intended for untechnical readers; Mr. Bradley says that his little volume is written for educated readers unversed in philology, and Professor Jespersen declares his purpose to be "to write at once popularly and so as to be of some profit to the expert philologist." The books are, both of them, popular in the best sense of the term. The general reader will find here much to interest and instruct, and the professed philologist need not fear finding either perfunctory or commonplace.

The point of view which the authors assume toward their subject is, if not entirely original, one at least which students of English have too much neglected. Their purpose is not to give an exhaustive history of the English language, that is, a statement of all the facts of the language, but to go behind the facts, and, as Mr. Bradley says, to study the "causes that have produced the excellences and defects of modern English as an instrument of expression." Professor Jespersen announces his purpose in somewhat similar language; his aim is "to characterize the chief peculiarities of the English language, and to explain the growth and significance of those features in its structure which have been of permanent importance." He attempts also "to connect the teachings of linguistic history with the chief events in the general history of the English people so as to show their mutual bearings on each other and the relation of language to national character."

The books thus enter into the inheritance of the store of

learning which the historical students of language have laid up for him who has the wisdom to avail himself of it. In many ways all previous scholarship in English is but a preparation for the kind of scholarship exemplified in these volumes. Altho the historical study of the language of the earlier periods has yielded results of the greatest importance and is of course necessary for the intelligent interpretation of early texts, it is the living language considered "as an instrument for the expression of thought" that is most abidingly interesting. It is difficult to see much justification for that historical study which does not get beyond the statement of the objective fact, which does not lead out into the study of the operations of the minds which lie behind the phenomena of the language. And it is because these books turn from the familiar chronological and descriptive history of the language and try to write, in a systematic way, what might be called its psychological history that they are truly important.

The six chapters of Mr. Bradley's book fall into three main sections. The first section (pp. 16-79) discusses the English grammatical system; the second section (pp. 80-214) is devoted to the study of the English vocabulary, and, as one might expect from Mr. Bradley's known interest in lexicography, this is the longest section of the book; the third section (pp. 215-240) treats briefly of some makers of English, of certain men whose skill in the use of language was such as to enable them to impose their inventions upon popular usage. Phonetic changes considered in themselves, and apart from their influence on the development of the grammatical system, are disregarded as falling outside the purpose of the book, which, to repeat, is to study only those characteristics of the language which are important for its greater or less efficiency in the expression of thought. Modern English is neither better nor worse than old English, Mr. Bradley thinks, because in many instances its sounds are different. In general we must agree to this proposition; Old English *a* is no better than its modern equivalent, long *o*. But in other instances has not the pronunciation of the language really become simplified? as, for example, in the vocalization of consonants, *dæg* > *day*, *slægen* > *slain*, *swelgan* > *swallow*, etc. Initial *hl* simplifying to *l*, as

in *hlaf* > *loaf*, and numerous similar changes, are also clear gains in economy.

In the making of English grammar the most striking changes which the author notes are those which have affected the inflectional system, the changes which have turned English from a synthetic into an almost completely analytic language. The causes of these changes Mr. Bradley considers to be two; first, phonetic change, resulting in a confusion, a leveling and a final loss of inflections, and secondly, the mixture of peoples speaking different languages, resulting in the formation of mixed dialects and the gradual weathering away of the less easily apprehended grammatical distinctions of form. The desire for uniformity the author regards as having had very little to do with the evolution of English grammar. It seems perfectly natural that this should be true, since the rules of uniformity are the creations, the abstractions, of the professed grammarian, and enter very little into the consciousness of the natural users of the language. Mr. Bradley's summing up of the results of inflectional loss is not entirely optimistic, as it is, for example, in Jespersen's *Progress in language*. Particularly in writing modern English, Mr. Bradley thinks there is danger of ambiguity which an inflectional language would be free from. Unfortunately, no examples are given, and it is difficult to see just what sort of ambiguities the author has in mind. Even those examples of colloquial expressions which are cited, as *he's* = either *he is* or *he has*, *I'd* = either *I had* or *I would*, cannot be regarded as really ambiguous; to the grammarian they may be ambiguous, but in actual use they never result in any logical uncertainty.

Many other topics are interestingly presented, only a few of which can be mentioned. The Old English *-es* and *-as* endings of the genitive and the plural respectively are explained as persisting according to the principle of the survival of the fittest: *-es* being only a genitive singular ending and nothing else, and *-as* only a nominative and accusative plural, the two endings came to be regarded as the type endings for the two categories. The change from grammatical to natural gender Mr. Bradley regards (pp. 47-50) as "one of the most beneficial changes which the English language has undergone."

The passing of the subjunctive he also views with equanimity (p. 53). The generalization of *you* as the pronoun of address, and the consequent loss of *thou*, he regards, on the contrary, as a distinct loss to the language (pp. 62-63). Professor Jespersen's views on this point are diametrically opposed to Mr. Bradley's. He looks upon the loss of *thou* and the extension of the politer *you* to all persons as a sure indication of the essential democracy of the English character. "English has thus attained the only manner of address worthy of a nation that respects the elementary rights of each individual" (p. 237). But it may be doubted that the English *you* means as much as Professor Jespersen makes it mean. The loss of the *thou* is probably due to the common English tendency to get along with as few words as possible; and certainly as much contempt and scorn can be put into our modern *you* as the older *thou* was ever capable of expressing. In the conclusion of this section of his book, Mr. Bradley expresses the opinion that the making of English grammar, whether for better or worse, is now a finished process, that the "grammar will remain for centuries very nearly what it is now." The reasons assigned for this belief are the general spreading of education and conservative literary culture, and the fact that inflectional simplification has gone as far as practical convenience will allow. Mr. Bradley holds out no hope, therefore, to those who would like to see the adoption of a common gender pronoun, a real second person plural, and similar grammatical reforms.

The concluding paragraph of the book takes an optimistic view of the language of the future. Mr. Bradley sees no reason why the English to come should not be a better, that is more efficient, language than the English of the present. He assumes the reasonable position that language deteriorates only as the thought and general character of the people who use it deteriorate. As he has no fear of such a fate for the English people, he concludes that it is "not an unfounded hope that the future of the language will be a history of progress, and that our posterity will speak a better English—better in its greater fitness for the uses for which language exists—than the English of to-day."

Despite the identity of general subject, the topics discussed

by Professor Jespersen in his volume differ considerably from those treated by Mr. Bradley. Professor Jespersen's impressions are interesting, also, as being those of an outsider, of one who certainly has an intimate acquaintance with the English language, but who, nevertheless, approaches it with the freshness of interest and the sense of novelty which are possible only to a foreigner. The opening chapter of the book, which will be recognized by those who heard it, as an address delivered in the autumn of 1904 at Columbia University by invitation of the English Department of that university, is an attempt to sum up a foreigner's impression of the English language. The adjective which Professor Jespersen finds to be most appropriately descriptive of the language is masculine. There is a certain robustness, brevity and directness in the language which leads Professor Jespersen to assign as its dominant note the quality of masculinity. On the other hand, Professor Jespersen finds that the language is wanting in fineness, in subtlety of expression and cadence, in those qualities which may be designated as feminine. The fact that Professor Jespersen's impressions are subjective—they could not well be otherwise—that they are expressed in the terms of a poet's metaphor rather than in the logical formulæ of the scientist, does not detract from their significance. We feel that he has given us a real characterization of the English language, one certainly that sets it off sharply from French and the other Romance tongues, and, in less degree, from its own cognate Teutonic tongues.

The remaining chapters of the book treat of more specific questions in the history of the language. Attention may be directed particularly to the explanation of the fact that few Celtic words were taken over into the language in the Anglo-Saxon period (p. 39), to the discussion of Anglo-Saxon synonyms (pp. 51 ff.), to the undoubtedly sound inference that the large vocabulary of words which have to do with the sea in Anglo-Saxon poetry is due to the fact "that the nation *had been* seafaring, but had given up that life while reminiscences of it were still living in the imagination" (p. 53). All thru this section of the book devoted to the study of vocabulary one is charmed by the continual freshness of the examples cited and

by the keenness and subtlety of the interpretation of the significance of borrowed words. The discussion of the French element naturally takes up the largest space. Professor Jespersen uses a new term in accounting for the extravagant borrowing of French words in the Middle English period. This movement, a sort of Gallomania as it has been called, is accounted for by Professor Jespersen as due to English snob-bishness—a charge which the author thinks may still be laid at the door of the nation. Borrowed French words are consequently such as generally have to do with ideas pertaining to the social and intellectual aristocracy of the people. They differ thus strikingly from the Scandinavian loan element, which is altogether democratic in character.

In his discussion of the Greek and Latin loan element, Professor Jespersen is very bitter in his arraignment of the learned vocabulary, of those words which “are used in dead earnest by people who know that many big words are found in the best authors and who want to show off their education by avoiding plain everyday expressions and couching their thoughts in a would-be refined style” (p. 148); and he cites the instance of Canning’s inscription on Pitt, “he died poor,” which a London Alderman wished to turn into “he expired in indigent circumstances.” But it seems rather hard to make the language responsible for the pomposities and absurdities of the ignorant word-monger. The curse of fine writing is certainly one which always hangs suspended over the head of the writer of English; on the other hand, the judicious use of “big words” gives a variety to English style, a shading in effects of humor, ornament, and cadence, which fully compensates for the crudities of the unskilled user of the language.

The ninth and next to last essay of the volume treats of the language of Shakspeare and of the language of poetry in general. Many of the details discussed here are so obvious to the native user of the language that they seem, at first, hardly worthy of comment; when regarded, however, from the outside point of view of one to whom the whole language is more or less strange, they appear in a new and more significant light. The remarks on the language of poetry, especially, one would gladly see elaborated into a complete grammar of poetry.

In his last chapter Professor Jespersen gathers together a few characteristics of Modern English, the use of the democratic *you*, which has already been mentioned, the avoidance of oaths and swearing in general, the fondness for Biblical phraseology, the tendency towards prudery, the fear of the plain word for the plain thing. Finally statistics are given showing the great expansion which has taken place in the use of the English language in modern times. To the author's bibliography of this topic should be added Professor Brander Matthews's suggestive essay "The future of the language" in his *Parts of speech*. Prophecy is at all times dangerous, but in the present instance it is difficult to restrain the imagination from dwelling on the vast possibilities of the English language of the future.

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X

NOTES AND NEWS

"The Sceptres of the University": One of the few formal "functions" to be still seen in German universities is the *Rektoratswechsel*, or annual ceremony of transferring authority and its external symbols from the outgoing to the incoming rector. At Berlin an important feature of the ceremony is the use made of the "academic sceptres," the outward and visible sign of the jurisdiction of the rector. The hand of the new incumbent rests upon these while he takes the oath of office, after which he receives them into his formal custody.

Diels' "Antrittsrede," 1905 Professor Hermann Diels, when inducted into office on October 15, 1905, delivered an address of singular interest and value, dealing with the history and signification of these emblems. The two belonging to the University of Berlin were originally the property of the former University of Erfurt, presented to it on the occasion of its tercentenary festival in 1692; when that university was discontinued in 1816, they were made over to the new institution in Berlin, then a lusty infant of six, which wisely preferred them to brand-new ones offered it by the Prussian Ministry of Education.

The sceptre represents the staff in use from the earliest times among Teutonic peoples in the ceremony of oath-taking, as a symbol of the penalty for perjury or breach of oath; and the custom of touching this staff with the hand was originally a reference to the magic power once supposed to reside in it. Among early Greeks and Romans, as among Oriental nations, the same feeling prevailed; the budding of the cut rod, whether viewed as impossible, as in Agamemnon's refusal to give up Chryseis to her father, or claimed to have occurred as a miraculous event, as in the legends of Tannhäuser, of Herakles, and of Aaron, points to the divine power inherent in the tree and persisting in the staff even after separation from the parent stem. The new science of comparative religion has brought to

light many astonishing examples, among people of to-day as well as among the ancient and mediæval men, of the prevalence of this feeling. "The original meaning of these symbols is everywhere this, that prince, judge, priest, or speaker in an assembly, in brief, anybody that has to speak or act in public with authority, grasps and uses the staff as a reminder of the protecting deity that draws near and gives strength to him, the single weak man, in his position of responsibility. Thus these sacred staves, these sceptres, in their progress from king to king, from generation to generation, from university to university, embody, so to speak, the good spirit that watches over the separate generations and corporations; and when the rector makes his vow upon these ancient sceptres he calls as it were upon the genius of the university to be his witness and protector. He solemnly promises to shape his decisions and to administer his office not only to the best of his subjective judgment but also in harmony with the traditions of his illustrious predecessors and with the spirit of the university as a whole."

The spirit of a corporative entity is often not less real than its eternal existence; it is not merely the aggregation of units which at first sight alone appear to constitute it. So growth and prosperity of the university are conditioned by the concentration upon it of all conceivable impulses, internal and external; but it takes into itself and assimilates only those forces that are in harmony with its own congenital character. The University of Berlin, at its foundation, narrowly escaped organization as an *allgemeine Lehranstalt* that should at once pursue pure science, cultivate the "useful," maintain technical schools, unite the geniuses of German literature, and form the centre of the German book-trade. Such an ideal was a true child of the utopianism of the seventeenth century; it has reappeared at intervals, at the beginning of the nineteenth and again of the twentieth century. But the university is called upon rather to maintain the idealistic pursuit of truth for its own sake, the search after the principles of knowledge which alone make possible a true progress in the technical arts; to maintain a bond of union between the many sciences into which ever-growing specialization has divided human investigation. The university becomes every year, as it ought to become, more

“useful,” both to the practical needs of man and to his requirements in state and society; but this it does best by steadfast maintenance of its ancient ideal—an ideal of double importance since the reforms of 1900 have admitted to the universities students trained in the *Realgymnasien* and the *Oberrealschulen*, the aims and methods of which are and must be prevailingly practical and technical. Only the university, with its proper devotion to the theoretical and its broader outlook upon science, can give these students what they need in the way of the higher intellectual training; and this is its highest duty, this the true meaning of the transmission of the sceptres from rector to rector.

EDUCATIONAL REVIEW

MAY, 1906

I

THE JOINT EDUCATIONAL RESPONSIBILITY OF THE SCHOOL AND THE COMMUNITY¹

I have a peculiar pleasure in being here to say to you some of the things which in my brief experience I have learned. Looking at it from the outside, we live in a period of Renaissance. The spark that lighted mediæval Europe, the fall of Byzantium had, to my mind, no greater effect upon Europe than have the Atlantic cable and the ocean steamer and the vast increase of wealth in this country had upon New England. It may seem that there is little resemblance between the old infliction of pain upon themselves by the mediæval hermits and the endless listening to sermons on the part of our Puritan ancestors; but is there not this in common between the two—the sense that a God must be propitiated; that sacrifice must be made?

It seems to me there is today a change which many good people deplore; a change toward a greater conception of the possibilities and the beauties of the life we live. That should be welcomed, not because it is better, but because it is the natural thing toward which we are tending. It seems to me this change should no more scare us than it should scare a hen to see ducklings going to the water. Why do we not sympa-

¹The fifteenth annual meeting of the Harvard Teachers' Association was held at Harvard University on Saturday, March 3, 1906. The papers and discussions were upon the topics "The joint educational responsibility of the school and the community" and "Football."

raise the curtain. In my youth, highly respected teachers too often failed to perceive that the curtain between them and their pupils remained down.

We used to learn that there were two kinds of salvation—salvation by faith and salvation by works; but in modern citizenship there is a new kind of salvation, and that is salvation by good dinners. In America there are endless clubs constituted for the purpose of developing good citizenship. Some are merchants' clubs—others reform clubs; and at some of these clubs you pay a dollar for a dinner and at some of them ten dollars, with a speech afterward, at which the overworked word "civics" is very much used. But we tend too much to stop short after having eaten our dinner and heard our speech with the idea that we are now good citizens; and the politician sizes us up immediately, and he looks upon us as simply so much froth which really does not count.

An association of which I was an humble member, the National Municipal League, met in Boston some years ago. It had its dinner and its speeches; Mr. Bonaparte, now Secretary of the Navy, and Mr. Carter, the leader of the New York Bar, and other wise men spoke; and the next morning this humble member of the National Municipal League resigned, because the wise men made the error of talking upon generalities and the evil doings of other men. Neither of these two ways of making the community better is to my mind effective. Fault-finding is an ungracious point of view. The men who conceive themselves to be the best men in the community are almost without exception so busy with their own private affairs that they have no time for the public service, and if you ask them to act upon any working committee, a board of aldermen, or a school committee, you almost always have the reply that they have too much to attend to of their own. But the second-class men take up this work as a profession, and then the men who conceive themselves the best turn about and say, "Why, these other gentlemen are trying to make something out of it; how wicked they are!" And that is the conception that runs thru the greater part of the educated community.

I suppose few of us have any idea of the exclusiveness of

education. Rich people are as a whole generous, touchingly so at times, with their money, but when it comes to mingling with the community in such a way that all become fellow-citizens, then the well-known "10-foot pole" comes into effect. When, just before election time, the rich and educated ask their fellow-citizens to accept their ideals as if they were the Ark of the Covenant, is it strange that these ideals, held out on the 10-foot pole, are coldly received?

Every man in the community should be a politician of some sort. There is no virtue in simply having never done wrong. A lamp-post does not break the Ten Commandments. A man who has never been in any kind of a political scrimmage is a man who has simply done up his talent in a nice, clean napkin, and is of no account. It reminds me of Judge Hoar's remark when he was asked if he was going to the funeral of Wendell Phillips: "No," said he, "but I approve of it."

The schools, especially the public schools, we look upon as the basis of our democracy. If we do not have an educated citizenship our democracy must give up; but you go to a citizen and ask him to take a concrete interest in the public schools and I think you will be edified by the deaf ear he turns to you. The secretary of our Public School Association went abroad last summer with nervous prostration because of the cold reception he got when he asked men to do a little work for the public good.

A new type of man should develop and our point of view should change toward rendering more faithfully unto Cæsar the things which are Cæsar's. Almost tragic is the scant interest we can take today in the many endless sermons preached in New England during past generations. Those of you who have read the *Mosses from an old manse*, by Hawthorne, may recall how he went up into the attic of the old house and found the sermons of the clergymen who had lived there long before him, and not one of those sermons had any interest for the man of the present day because they described a world which never was. But up in that old garret he found a newspaper of long ago, and that newspaper, which was the product of minds not seeking anything of importance, had reality. The newspaper

did present something of real life. I myself had an uncle who was a good preacher, yet at the end of his life he measured his sermons by the barrel.

Let us not be afraid of this new type of man if he comes to the front today; let us rather hope that he will multiply. And the type I have in mind will be represented this morning by a man who is coming here to take part in this discussion. When you have gone to any number of people and asked them to make some little sacrifice for citizenship and have received almost uniform refusals, and when you have hesitated to ask one particular man because you know that his responsibilities are at the time greater than those of any other man of your acquaintance; when you know that he has just entered a great banking house and that it is his duty to show his new partners his ability to serve his firm, and yet you find he will take the job to serve three years on the Boston School Committee, and give his three years' service joyfully and loyally, then you may truly say there is a new type of man developing—a business man so experienced that he knows many things which I believe even teachers do not know, and yet so much of an idealist that he is ready to make a great sacrifice for the public good.

Mr. Storrow is the type of man that this community needs today more than any other type. I think he should be respected out of all proportion to other eminent men who never make a real sacrifice for the public welfare.

The world is a good place and the people in it are good people. We learned many years ago that the thing we should strive for was to have faith, hope, and charity; and the rich man who takes no part in public life, but grumbles, has no right to complain of bad government, as he is so wont to do. Shame should forever silence his tongue until he has tried zealously to make things better.

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II

THE JOINT EDUCATIONAL RESPONSIBILITY OF THE SCHOOL AND THE COMMUNITY

"The education of the child," says Dr. Laurie,¹ "is the bringing of him up in such a way as to secure that when he is a man he will fulfill his true life—not merely his life as an industrial worker, not merely his life as a citizen, but his own personal life thru his work and thru his citizenship."

This wise and comprehensive definition, with which most intelligent Americans agree, but which few seem disposed to put in practice, requires that, in some way, there be given to every normal child an opportunity to become, within his capacity, an efficient worker, an intelligent citizen and a true man. Can the school, now or ever, provide this comprehensive opportunity? No. Is the community able, if it will, to furnish it? Yes. That being the case, the whole responsibility, including accountability for the efficiency of the public schools, lies with you and me and those fellow-citizens who make up any given city or town.

Dr. Laurie's admirable definition suggests, moreover, the best hypothesis upon which to base education—the hypothesis that the child's nature is threefold and yet indivisible, that he has a physical, a mental, and a moral nature, each deeply involved with the others, and all combining to form the essence and end of a human being: character. Education, of whatever nature, has to deal, at one and the same time, with an animal whose thoughts and impulses, no matter how complex, are conditioned upon his health; with a thinking being whose physical and ethical states are governed by his percepts and concepts; with a willing (or moral) being whose appetites and thoughts are swayed by an unknown, inner force called conscience. Every step in education—be it of the home, the school or the street—must rest upon the premise that the child, as well as the man, is simultaneously an animal, a thinker and a soul.

¹ *Institutes of Education*, Lect. II.

Popularly, however, education has lost a large part of its real significance, and even those who ought to know better have fallen into the habit of associating it with but one of the three phases of human development—that of the mind. Consequently, since intellectual training is peculiarly the province of a school, we have persuaded ourselves that education means simply schooling and, conversely, that the youth who has been schooled is educated. To be sure, many communities have adopted, with more or less enthusiasm, the catch-phrase: "Send the whole boy to school"; but most of them as yet fail to appreciate that the school to which the larger part of the boy still goes has unlicensed teachers, unsupervised studies and, too often, the devil for headmaster.

In primitive, Puritan days, the whole boy did go to a comprehensive school controlled in every department by the entire community. His mental training, by modern standards, was pitifully narrow; but his teachers were literally God-fearing men, and the minister, the lawyer and the squire had personal knowledge of every boy's advancement. His physical training was rude and laborious; but it was mainly out of doors, and was personally looked after by the father or the master, both having a direct interest in making that part of his education thoro and efficient. His moral training was hard and unlovely; but, such as it was, no youth was permitted to escape it. And over all phases of the boy's daily life, the parson and those indefatigable lieutenants of his, the deacons and the tithingmen, kept strict watch, being held to high supervisory efficiency by that vigilant theocracy which, as their own creation, the grim New Englanders liked better than the laxer rule of kings.

Whatever its shortcomings, the early New England town was an ideally many-sided school wherein to educate, in fact as well as in name, the threefold nature of a growing boy. The range of activities was limited and the stage—if I may use so scandalous a term—was small; but for that narrow theater the training of the actors was strikingly complete. Physically, the active life, with its varied farm tasks and household "chores," its exposure to the weather, its cold sleeping-rooms,

coarse fare and early hours made strong, wiry men. Manually, the wide variety of homely industries, most of them requiring skill, dexterity, keen observation, correlation of head and hands, and multiform activities, developed a Yankee ingenuity which assured industrial success. Mentally, the district school, kept usually by college students who, because of primitive conditions, lived among the people and knew the pupils and their families thru and thru, served at least to foster individuality. Politically, the town meeting, training boys from early youth in principles of liberty, democracy, and social responsibility, and establishing in them the habit of free debate, was a school of citizenship unmatched in history; while, ethically, the ceaseless pressure of meeting-house and public opinion, upholding the weak and strengthening the strong, kept the average of morals singularly high.

To study the substantially complete educational efficiency of an early New England town is a chastening experience. Such an investigation shows the absurdity of placing, as we are too fond of doing, the modern palatial school-building beside the "little red schoolhouse" and bidding the awed spectator observe how much more we do for the child than our great-grandfathers did. In many ways, of course, we do; in richness of school curriculum we are far ahead; but were we to meet today's conditions as comprehensively—considering modern needs and resources—as those poverty-stricken forefathers fulfilled the demands of their crude time, we would have to show many things other than piles of brick and stone, many educational forces additional to those now active. Did some ancestral ghost, gliding fearfully thru marble corridors covered with works of art, and peering wonderingly into chemical laboratories resplendent with plate glass, summon courage to whisper: "Where do you educate your children's morals, where their hands, where their bodies, where their ingenuity, where their power to work, where their sense of duty to the state, where their ability to take efficient share in self-government?" what could you and I reply? Could we point to the churches, if there were any chance of that ghost remaining for the Sunday worship? Would we carry him to our

city halls, or ask him to read the yellow newspapers, to learn how we implant good citizenship? Would we take him into some tenement district to show how we develop human bodies and immortal souls?

Not that those elementary times are to be regretted or are to be brought back by living the so-called simple life. Better, on the whole, an hour of rich, modern complexity than a century of that narrow Puritan Cathay. The growth of our multi-form resources, intellectual breadth, industrial power and fabulous wealth has been a glorious evolution and would be an unmingled blessing had education, in the true meaning of that term, advanced with corresponding speed. Emphatically, however, it has not kept pace with our rapidly differentiating social needs; and if we do not appreciate this lagging of genuine education, if the fathers and mothers, if all the members of a modern community do not realize that they are responsible on a large scale, as the Puritans felt themselves responsible on a far smaller scale, for the all-round development of all boys and girls, then modern progress will culminate and at the same time will come to an end in rank materialism.

I would not exalt unduly the wisdom and prescience of the Puritan Yankee, whose educational difficulties, as compared with ours, were trivial. But we cannot too highly extol his sense of individual responsibility and the splendid results which that conscientiousness produced. Neither can we too strenuously maintain that real democracy must be bottomed upon the conviction of at least a majority in every community that each citizen is morally liable for the physical, industrial, and spiritual welfare of his entire city or town. Not simply in extent of resources, but also in breadth of educational view, no American community but contains many persons far in advance of their Puritan forebears; but, from one cause and another, the proportion of citizens having a sense of civic responsibility is today much less; while the problems confronting them are incalculably more complex. The burning question of democracy, it seems to me, is how to interest a greater number in every city, every town and every village in these vital problems, and how to inspire them to help in solving them.

As to rural communities, their educational problems are not markedly greater than in the early nineteenth century, but the forces for meeting those problems are vastly different. Then the small town gave general allegiance to an individual church having both temporal and spiritual power; today half a dozen sects are struggling, often in quite un-Christian spirit, for mere domination. Then a homogeneous population swayed by active, wholesome public sentiment, governed the village as a genuine democracy; today, with the strongest men and women gone to the cities and their places filled by a heterogeneous and often decadent people, license, not liberty, holds frequently the reins of power. Then the varied industries of farm and house and village-shop served as an education in themselves; today their place is taken by ill-cared-for farm machinery, crazy pine furniture and slop-shop clothes. Then village pride and satisfaction centered around the school, feeble and insufficient as that school might be, today, in hundreds of rural communities, there is but a grudging, perfunctory compliance with the law, the wage of the teacher being, in many instances, actually lower than fifty years ago, her status correspondingly depressed, and her influence in even greater measure gone.

Serious, however, as the situation in many rural places has become, the problem for them is far less pressing than for cities and suburban towns; because here, at the very outset, the imagination is staggered and the energy paralyzed by the mere element of size. This element has become so obtrusive and insistent that, in many cases, it alone is grappled with, resulting in great school-machines satisfied to handle in military fashion large numbers of pupils, to give them some sort of mental drill, and to drive them so far thru a formal curriculum as to keep the number of technically illiterate, in spite of almost overwhelming immigration, astonishingly low. But to believe that in meeting the perfunctory tests of registrars of voters the community fulfills its educational duty is to place ourselves on the level of the little girl who, having with great difficulty mastered the alphabet, asked with an air of assured omniscience: "What more is there for me to learn?"

Like M. Jourdain, who had unwittingly indulged in the life-long speaking of prose, every one of us, despite his probable disavowal, is party to an elaborate socialism which, being negative, is largely ineffectual. The necessity for self-preservation has driven us into a kind of *ex post facto* socialism which, at public cost, establishes hospitals for the sick and insane, almshouses for the pauperized, and houses of detention, jails and prisons for the morally diseased. Such punitive and palliative socialism is the result, primarily, not of economic enlightenment, but of collective fear. A wise socialism would provide the ounce of prevention rather than the pound of cure by furnishing, at common cost, a genuine, fit and thoro education for all three sides of the nature of every child in the community. It needs no special wisdom to understand that, if we are to have socialism at all, preventive measures are far cheaper than remedial ones and that the saving in human souls, thru such measures, is incalculably greater. To ward off idleness, disease, crime, pauperism and their attendant evils from naturally well-disposed children costs immensely less than to try to cure them in hardened adults, and means, moreover, the moral preservation of many now wasted lives. Therefore, unless one adopts an attitude wholly *laissez faire* by saying that the state should do nothing at all for self-protection, unless one is ready to give up prisons, hospitals, police, almshouses and all kindred things, then he must acknowledge that, on economic if on no other grounds, the state has not only a right, it has a solemn duty to provide means for developing every boy and girl physically, mentally and morally, to the full measure of each child's capacity.

In every city and in many towns there are hundreds—perhaps thousands—of children who, in order to become good and productive citizens, need and have no present way of getting: more and better air, at least decent surroundings, a chance really to play, an elementary knowledge of hygiene, some idea of how to use their hands, some power of coördinating brain and hand, an ability to work with steadiness, intelligence and effectiveness, at least a rudimentary acquaintance with the principles of government and with the responsibilities and

rights of citizenship, and some conception of the qualities which make for character and real success. At present these thousand and ten thousand children—even if there be school accommodation for them—are substantially without moral guidance or educational supervision beyond that given by exhausted taskmasters (euphemistically called teachers) each striving simply to keep in order fifty or sixty squirming polyglots.

Of course much is being done in all these directions toward right education; but such work has thus far been sporadic, desultory and vaguely experimental. What is being attempted toward comprehensive education has not the whole community, but some individual, club, or association behind it; and that little is subject, moreover, to the whims and spasms of economy of kaleidoscopic school committees. Before real advance can be made, there must be approximate consensus of expert opinion, an authoritative policy—fixed without being rigid—and, above all, an appreciation on the part of the public that education really pays only when it is not cheap; that not until we reach a high level of expenditure are we likely to secure a general schooling worth paying for at all. At present the smell of the bargain counter is over the public schools, cheapening the teachers, substituting shoddy for genuine mind-stuff, depriving children of the right of self-development, and defrauding the community, economically and morally, to an extent immeasurable.

Such a program of genuine education as this demands adequate revenues and the spending of them by men and women who will use them honestly, wisely and effectively. In other words, we are confronted with the formidable task of making democracy itself efficient before we can give an education adequate to the needs of democracy. To attempt what education ought to undertake while the control of great sums of money and huge bodies of children is left in such hands as those into which, stupidly and lazily, we so often surrender our city or suburban governments, would mean financial disaster and an educational cataclysm. Therefore the fundamental responsibility of every community toward education is to clean its

municipal house, to drive out drones and thieves, to reform and equalize methods of taxation, to compel educated and enlightened citizens to do their full share in civic work. That accomplished, and not till then, is the community ready to undertake those measures of thoro public education toward which democracies must reach forward if they are finally to endure. The paramount reason for giving a common education is that it may prepare for citizenship; yet it is obviously impossible to fit youth for good citizenship unless they have before them a daily example of just, efficient, clean and economical government, unless they are made to understand the principles upon which good government rests, and unless they are prepared, upon arriving at manhood, to assume their due share of the common burden of democracy. To set up a compulsory and expensive system of public schools to train for citizenship, and then to make no direct connection between that elaborate school mechanism and the machinery of local, state and federal government, is to emulate that foolish king of France who, with twenty thousand men, marched up a hill and then marched down again.

The first educational duty of the community being to establish a sound, businesslike, genuinely democratic government, its second duty is to preserve and develop children, on the physical side, by cleaning, materially and morally, the whole city, destroying slums, providing playgrounds, baths and gymnasiums, keeping the supply of milk and other indispensable foods clean, pure and cheap, and employing rational means to educate mothers in hygienic living. All this is socialistic, but it is wise socialism; while to establish hospitals, almshouses, homes for the insane and crippled, to say nothing of prisons filled with victims of foul environment and want of training, without at the same time attempting to stop the supply of inmates for those institutions, denotes a very stupid and extravagant socialism.

The next series of problems for the community to take up, as being essential to genuine education, are those relating to that basis of civic life and morals—the family. Therein most of the child's training will take place whether we want it to or

not, and therein, almost without exception, the ultimate usefulness or worthlessness of the boy or girl will really be determined. Like inane foreign-conversation books which devote themselves to such topics as "the large overshoes and green umbrella of my grandmother" instead of to sentences framed for the exigencies of traveling, our school systems regard too exclusively the things taught instead of the human being to be trained, and forget that to attempt to educate a child as an isolated pupil, without reference to his family and neighborhood associations, is like trying to solve a problem while ignorant of the most essential data.

The next genuinely educational business before a community is to prepare the child for that industrial usefulness, to himself and to the community, which is fundamental to good citizenship. He is virtually but half educated so long as he has not acquired such necessary industrial qualifications as manual control and dexterity, coöperation of brain and hand, quickness of adaptation, fertility of resource, concentration, "gumption," and has not been given, on top of these, ample opportunity to secure the groundwork of some special trade or industry. Without such essentials, he is likely to join that appalling army of "floaters" who, without a trade or any chance of learning one, wander from one casual occupation to another, depressing wages, inducing enormous industrial waste, and swelling at last the costly ranks of vagrancy.

Having thus provided for his physical welfare, for the right family atmosphere, and for the training of his body and hands, it would be logical to declare that the community should next take up the task of furthering the child's mental and moral growth. But, practically, there is no such task remaining. Excepting the encouragement of such avowedly moral forces as churches, Christian associations, etc., little is left for the community to do; because by taking such educational steps as have been indicated, the mental and moral sides of the growing youth will, by those very measures, have been provided for. Give a normal child hygienic and uplifting surroundings, with plenty of opportunity for physical and manual development,

make every effort to keep sound the family influences which shape his life, imbue him with those qualities which lie at the root of industrial effectiveness, surround him with the evidences and results of good government, and—provided only that he be taught the necessary tools of human communication, such as reading, writing, and numbers—the mental growth and moral stability of that child are made almost absolutely sure.

Where, in all this, do the school, the teacher and the schoolhouse come in? Everywhere; for the teachers must be agents between the community and the individual child, while the schoolhouse must be the center from which radiates this genuine educational activity. But the new school will have many branches besides those of book-learning. There must be health-learning, hand-learning, work-learning, citizenship-learning, æsthetics-learning, ethics-learning; and the schoolhouse must influence not merely the children, but the entire neighborhood. As things are now, we put a teacher in charge of fifty or sixty children and demand the impossible by requiring her to give them not only a large amount of information and a strong measure of discipline, but also training in polite manners and a love of Christian morals. Under such conditions, it is surprising what some devoted men and women manage to accomplish. Had the community a proper conception of education, however, a teacher would never be given more than twenty pupils, and she would not instruct them as a segregated class in school, she would develop them as, so to speak, twenty tendrils springing from a like number of human families. She would study the child, not mainly as he is related to the school and to the other children, but as his life is intertwined with that of his family and of the neighborhood in which he lives. It would be an important part of the teacher's work to know that family, to learn its physical, industrial and moral condition, to determine, in the light of that knowledge, what the child specially needs to make him fit for industrial and moral citizenship. Having thus analyzed every pupil under her care, she should then be able to call upon a school system sufficiently rational and elastic, upon a community sufficiently enlightened,

to supply within reasonable limits each child's individual demands.

School—or rather education—ought not to be an incident in the child's life; it should be the main interest and purpose of his first sixteen years. His home, his health, his food, his play, his work, his companions, his recreations—all are matters of profound importance to the community; for it is those things which determine whether he is to be a source of strength and profit to, or a burden and weakness within, the body politic; and all those matters the community, if it choose, can supervise and largely regulate thru and by its public schools.

Boys and girls do not like to be idle, disorderly and vicious; but under conditions which give them nothing definite to do out of school and nowhere to go except the streets and alleys, they have little chance of being anything else. Give them playgrounds and teach them how to play; make it possible for them to employ themselves usefully in varied handicrafts; teach them to enjoy good books and rational amusements; show them how to organize themselves, how to help their mothers and fathers, how to improve their neighborhood and the whole community; and you will find them outwardly, as they already are innately, sturdy enemies to idleness and vice. In doing this, moreover, education will really have performed its proper function—that of preserving and developing strong, healthy, capable, intelligent and truly moral citizens.

These, it seems to me, are main truths in education: (1) that we must educate individuals, not masses; (2) that we must train the child as a part of a family and a neighborhood, not as an isolated unit; (3) that we must develop a child by sympathy and interest, not instruct him by compulsion; (4) that we must reckon with and enlist all the social forces (the school being but one) which are molding the child's life; (5) that we must strive for a steady and harmonious development of all three sides of the child: his body, his mind, and his soul; and (6) that we must ever keep in view as the true goal of education, not book-learning for the individual, but social and moral life for the community.

The corollaries of these main propositions are, of course,

obvious. If we are to train individually, not *en masse*, we must have small classes; if we are to educate by understanding and sympathy, we must have teachers who appreciate and practice this higher way of teaching; if we are to take into account all the forces which surround the child, we must educate those forces—the family, the church, the community itself—to comprehend and to perform their share in this real teaching; if we are to aim for all-round education, we must revise our curriculums, enlarge the uses of our schoolhouses, spend three and four and ten times as much upon our schools as we today provide; if we are to make citizenship and morality the supreme ends of education, we must ourselves live better lives and must make all parts of our cities and towns fit places for a child to be. This is a stupendous task for a community; but whether it be done or whether it be not done means, I am convinced, life or death to American democracy.

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III

FOOTBALL ¹

My topic is football—but before going into it I want to make a few remarks on the subject of athletics in general, since in a broad way what I shall have to say of football is also true of most other sports. In the first place, I want to put myself on record as being a great believer in athletics—I consider athletics to be a greater force for clean, healthy living, especially in our schools and colleges, than any other one thing. Take away athletics, and the excess of vitality in our boys, which is now harmlessly worked off in muscular activity, will be expended in the vices. This point was forcibly brought out by Wellington in a conversation that he is said to have had with a prominent French official while the two were visiting one of the famous English schools. “It seems to me,” said the Frenchman, “that athletics play altogether too prominent a part in English schoolboy life—I hear no talk of anything but cricket.” “True,” said Wellington; “and what do the French boys talk about?” There was no reply—and Wellington had made his point.

Every sound, healthy American boy displays at an early age an over-abundance of vigorous animal spirits. These spirits are generally worked off in one of two ways. Either thru the natural channel of exercise or thru the vices which alluringly offer themselves to him on all sides. Prohibit or curtail too much his recourse to the natural outlet and he will turn to the less natural and wholly undesirable alternative. It is also true that any boy would rather exercise out of doors with his fellows than grind out his relief at the chest weights, for while the latter method may develop larger muscles and a more evenly balanced physique, it cannot compare with outdoor sports in the unconscious and delightful mental relaxation which is the resultant of competitive games in the open air.

¹ Reprinted by permission from *The world to-day* for May, 1906.

This brings us, then, to the subject of competitive games. I argue that such games, if properly regulated, are a greater force for clean, healthy living than any other one thing. To my mind, they go further than any form of amusement or than our churches and Sunday schools—good as they are.

I believe that our cities make a great mistake in prohibiting Sunday baseball—and when I say that, I say it as one of the strongest advocates of everything that will tend to preserve Sabbath reverence. I believe that it is better for the mill hand, the factory worker, or any other type of laboring man to spend his Sunday at a ball game than for him to spend it as he commonly does—in talking filth at the street corners or before saloons. These street-corner groups have grown to be so obnoxious that no lady cares to pass one alone, for fear of being insulted. Which is worse, Sunday baseball or Sunday filth? Sunday baseball, if allowed, would, as it has done and is doing now in certain localities—draw these loafers, and at any rate greatly lessen their influence by affording interesting and healthy amusement for them.

I do not mean by this that I advocate Sunday ball for all classes of men. I do not. I do not think that schoolboys who play every day should be allowed to go to these games—such boys may, with profit, give up the spare time of one day to other subjects, particularly to those tending to raise moral standards. But I also feel that it were much better even for many of our schoolboys to go to Sunday games than to spend their time as many careless parents allow it to be spent. If it is to be billiards or card-playing in the home, what harm is there in attending a ball game out of doors? In this same connection, I believe in tennis and golf for business men—skating, riding, or driving. It seems to me perfectly proper for a business man who is cooped up in his office all the week to spend at least his Sunday afternoons in quiet and beneficial exercise. Such a practice leads men to enter upon their next week's work better prepared and more contented than if they had tried to sit about and read or to pass the time away in clubs.

I seem to be wandering from my subject, and many of you are doubtless asking what all this has to do with football and

athletics. It has this to do with it: In our school in California we wrestled for a long time with the Sunday question, and feel finally that we have solved it pretty effectively. After trying to keep a hundred or so boys—who had been active all the week and whose bodies had grown accustomed to activity—quiet during Sundays—after finding that the boys exercised in many minor ways despite us—after spending many Sundays in wondering into what mischief our most roguish fellows might be plunged—we adopted an absolutely different tack. We had the boys attend church in the morning, and Sunday school, besides writing home. After luncheon, we told them that they might play tennis, pass a ball, or go swimming, or exercise in the gymnasium, but that they could not play games of football or baseball, or engage in anything noisy or boisterous. The experiment has proved a great success, for our tennis courts and gymnasium now hold the boys we are most worried about. There is no evasion of rules, because none is necessary; the boy recognizes the fact that it is Sunday—and withal does not any longer regard his Sundays as days to be somehow struggled thru with.

We tried the strict orthodox way for ten years; it failed. We tried a more liberal policy, and it has been an unqualified success. What works in the West will work here; let us limber up a little, let us pass Sunday mornings with our boys in a way that will lead them to respect and not dread religion, and then, in the afternoon, let us allow them to skate, go sleighing, riding or driving, to play tennis, or to pass a ball. If we do, we shall get a better all-round boy.

Some teachers take the ground that a boy is sent to school or college to study and attain high scholarly standing, and that the less of athletics we have, the better. Such teachers point with pride to the *magna cum laude* man and the man who received only "A's" in his various courses. I take a little different point of view, in that while I believe heartily in scholarship standards and recognize also the fact that scholarship makes the inner college (as Professor James puts it), still I do not believe that the tremendous struggle which some men make to reach such standards is a wise thing. **Every**

year our law school drives some of her students to nervous prostrations and breakdowns, while our most brilliant students are in many cases reduced to mere skin and bones. I argue that there is much in college that is very worth while that cannot be found in books—that comes only from a wide association with men and life—and which the student cannot afford time for. What is more, the student after he has acquired his knowledge is likely to be in such poor health that he is unable to put his wisdom to use. Personally, I would not trade my modest scholarship record, with its attendant experiences of other kinds, for that of the best scholar in my class, for I know that I have gained more real good from my college course than he.

So strongly do I believe in this theory as generally applied that I am bringing up my children: first, with regard to their health; second, with regard to their other accomplishments. Health, and with it happiness, then wisdom and capability for service.

It is easy to see, then, that I believe in athletics, in competitive games, and therefore in football—provided, of course, they are properly regulated. And this brings me to my real topic—Football.

I am a great believer in football, even if of all our sports it has degenerated most, because it is such a virile game, and because, when properly played, it develops so many of the qualities that we most admire. It requires courage, self-sacrifice, self-denial, cleanliness, self-control, obedience, patience, chivalry, and regularity—all of them manly qualities. The fact that these qualities are not always developed is due to the way in which the game is played and taught, rather than to inherent faults of the game itself.

A game of personal contact and shock action, it may develop gentlemen or muckers, according to circumstances: gentlemen when brutality and unfair play is frowned upon, muckers when meanness is encouraged. I agree entirely with President Jordan of Leland Stanford University when he says that “when football is honestly played by honest teams with honest opponents, it is an excellent game.” Harvard’s games with Brown

and Dartmouth this year were absolutely clean, and yet they were hard played on both sides. When a cheer leader of an opposing team stifles a cheer about to be given because Harvard was penalized, on the ground that "we don't want to cheer unless we've *earned* something," athletics are in good hands.

At present, football is being attacked from all sides, and very rightly so; for, as one writer has put it, "conceived as a somewhat simple method of general exercise, football has evolved into a highly complex institution specialized along numerous lines. It has passed from a game to a spectacle. Other sports are reduced to pygmy proportions in comparison. The juggernaut rolls over them all."

Some critics demand that the game be made more interesting, others that it be made less productive of injury, and still others that it be freed from meanness and unfair play.

Opening up the game would probably produce a more interesting game from the spectator's standpoint, and as a side-issue is well enough. As a means, however, of making it harder to play unfairly without detection, it is highly desirable even at the cost of a likely increase in injuries. Reducing the injuries is also a good thing, and I believe in doing what we can along that line, but, after all, neither of these criticisms is vital. In the matter of injury, for instance, football isn't to be compared with tobogganing in the number of serious accidents that follow, or with skating, where every year great numbers of children are badly hurt, killed, or drowned. As an illustration, here is a list of accidents reported by the *Transcript* following a day of good coasting:

Five-year-old Ellen Kennedy was seriously injured by being run down by an unknown boy. She was made unconscious, and at the City Hospital is said to be suffering from concussion of the brain. Adolph Ritschel is at the City Hospital with a fractured skull. He ran into a telegraph pole with terrific force, his head striking the pole. Two other Jamaica Plain boys are at the City Hospital with broken legs. Daniel C. Murphy was run into by a double runner and his right leg broken above the knee. Walter Cochran broke his left leg above the knee. Michael Murphy had his nose broken and his

face badly cut by running into a fence. Harry Holt had a finger of his right hand badly crushed.

Very few football teams in the country meet with as many or as serious accidents as these in an entire season's play. It will doubtless be argued that the number of coasters injured is much less in proportion to the total number of coasters than is the case with football men. This may be true, but it must be remembered that the seventy-five or eighty men who go to make up the ordinary university football squad play three or four days every week, while the coasters, unless the weather is especially favorable, have only comparatively few chances to run risks.

We have more injuries in football than we should have, but I believe that football injuries can be greatly reduced if the reasons for them are studied and remedies applied.

With the third demand, however, that of putting an end to unfair play and meanness, I am in hearty and unqualified sympathy. Football should be freed from this objection, or it should go.

Let us see now how this undesirable feature has crept in. It seems to me that it is due wholly to our getting away from the true idea of sport. My idea of sport is that of a competition between two or more parties, in which good, wholesome fun and recreation are uppermost in the minds of the contestants—and in which the question of winning or losing plays but an insignificant part. How often do our teams compete on such a basis? Very seldom. And why not? Because the idea of sport or recreation has been very generally superseded by the idea that sport is a business—the business of winning. When the game was in its infancy, it was a question of winning fairly—then, as the desire to win grew stronger and stronger, and corrupt and underhand business methods came to be introduced, the “win-at-any-cost” policy developed, a policy which still pertains in many colleges and schools.

Thus it is that in the wild scramble to win, athletic standards, athletic ethics, and athletic morals have been overturned and lost sight of, and multitudinous abuses have sprung up. No game under the sun could hope to weather such a storm as

designing coaches and unscrupulous players—together with a weak public sentiment—have developed about football.

The various colleges and schools want victory, and that means that a specialist must be secured—because the rival college has one, and because the specialist will usually do better than the general practitioner. There are plenty of these specialists to be had, but unfortunately the general run are not of the right type—since men with possibilities in other lines of work do not usually care to adopt football coaching as a life work, and it is these very men who would make the most satisfactory coaches. When such men do enter this field, it is usually done as a means to an end—for a chance, we will say, to earn enough to get a start in some business or for a chance to try out the possibilities of a particular locality in the way of business opportunities. But, in any event, the stay is only just long enough to make possible the realization of some other ambition.

The man who coaches as a regular thing is likely to be a man of trifling ambition and small ideals, very often not a college graduate, and presumably lacking in the finer instincts. What is the result? As one writer has well put it: "The coach knows that he is not hired in the interest of justice or honorable regard for the ethics of the game and sportsmanlike treatment of opponents. He knows but one motive; he wants to win. That is what he is paid for. If he fails, he knows that another will take his place."

Under this pressure, what is the coach to do? He finds at once that he is facing an issue. Victory or decency—which? It depends upon the caliber of the man! But not wholly; for, as one writer has it, "it must be remembered that the coach does nothing without permission, or funds. He is responsible to those who have employed him." Thus it is that the methods adopted by the various coaches reflect in large measure the standards of the university which he represents. A man is known by the company he keeps, a college athletically by its coach and trainer. When a coach is allowed a free hand the university is at the mercy of his standards, and in some instances that means a great deal.

To go back now to the dilemma in which a coach finds

himself placed. The coach realizes that he is expected to win. "It is not sufficient," as a well-known writer has said, "that the team shall play well—it must *win*."

"On looking about," says another writer, "a coach finds himself compelled to do what his fellow-coaches do, or be left behind. He finds that he hasn't at hand the material of which to make a winning team, and so in a short while he is out 'looking for players.' Then he teaches them how to play." The natural in athletics has given way to the abnormal. The good old idea that each college shall take the material that comes to it freely and of its own accord and make the best possible representative team out of it, even if it be a loser, has been displaced by the more modern and very undesirable plan of insuring a weakened team against its losses by filling the breaches with outside recruits. It is no longer a question of what kind of a team have we, but what kind of a team are we going to get. A prominent trainer has expressed this point of view very clearly in the following doctrine: "If you haven't the men, why, damn it, get them." Another theory of the same man is this: "that it makes little difference how you win, since in five or six years only the score will be remembered."

And so we have proselyting of all kinds and degrees—proselyting by the colleges, among the larger schools; and proselyting by the larger schools among the smaller ones. It is only a question of time before the smaller schools will be at work among the kindergartens, and the kindergartens among our cradles. Just as far as this practice can go, it will go, unless it is stopped before the limit is reached.

The most serious proselyting is as a rule done by the smaller colleges which are trying to compete with colleges which are naturally out of their class—the type of college that is not big enough to remain small. To compete successfully with its larger rival, it is necessary for the small college to make up for the discrepancy in attendance—and for a resulting discrepancy in athletic material—by importing as large a percentage as possible of promising men. The larger colleges are, some of them, just as badly off—tho in others the practice is on the wane.

To proselyte successfully, "inducements" are necessary, for

the market is an open one. These inducements take various shapes, according to the varied tastes of the individual. The wealthy athlete, who is financially able to go where he pleases, must be guaranteed social recognition, or it must be shown that the college in question is fitted above all others to afford him just the instruction that he most needs. The tradesman's son, who hardly feels able to afford a college education, is shown how easy it will be to work his way thru with an athletic reputation as his main asset; how, as president of an eating club, or as publisher of programs or score-cards, he can not only pay his way easily, but even retire at the end of his course with a snug balance. The poor, tho scholarly, athlete is provided with a scholarship and other assistance, sometimes of a direct pecuniary nature. Nothing that is desired by these athletic prizes that is obtainable is left unprovided. It is even said that at one of our larger colleges employment and accommodations were found for a boy's entire family near the college in question, which was several hundred miles from the accustomed home, in order that the athletic ability of the son might be secured.

And one of the worst things about it all is the way in which parents connive at this underhandedness. Some parents even go so far as to put their children up at auction—the sale being made to the highest college bidder. Such cases as this have often come to my personal attention. The parents in these cases seem to take the point of view that a college or school education is a worthy object to strive for, and that the end justifies the means. Thus it is that many of our boys, as a writer has ably put it, “make a bad start in life by beginning their higher educational careers by petty deceit.”

Some people distinguish between proper and improper solicitation. Last year I myself thought that there was a distinction, and accordingly advocated the formation of Harvard clubs in the various schools for the sake of encouraging good athletes to come to us. During the past year, however, I have come to feel that there is no safe line of demarkation, and I now stand unqualifiedly against such practices in any form. Legitimate acts shade so gradually and imperceptibly into illegitimate

ones that the only safe way is to keep out of such practices altogether.

The coach, then, who "goes after men" usually brings back boys of inferior moral instincts—boys who have sold their birthright for a mess of pottage. Boys who, if they have a job to do, do it—if a man to do, do him.

The coach must now teach his men, and here is another stumbling block: Shall he teach them fairly or unfairly? It is again a question of morals—conscience *vs.* profit. Suppose that, under great pressure, our coach chooses the "profit" point of view. He teaches boys who would otherwise be above low practices, but who are at a most susceptible age, for such teaching "that," as still another writer expresses it, "for the sake of alma mater, it is a glorious thing to foul an antagonist, so long as the necessary yard is made."

As a result, the men are coached to violate the rules or, at any rate, to do all that the rules don't actually forbid, even if the unwritten moral code is clearly against such action. Or, if the coach does not quite dare to teach violations, he may in a sense perjure himself by not putting a stop to practices in which he sees his men indulging of their own initiative. Toleration of this sort is as bad as actual teaching.

From this style of coaching spring the intentional violations of offside, holding, tripping, slugging, filthy talk, coaching from the side lines, and all the other sorts of trickery which have brought the game into such ill-repute. Add to all this the newspaper notoriety, the crowds, the money, the betting, and the extravagance which has become a part of the football game, and, as President Thwing says, "professionalism, if not of money, at least of method, has come to prevail."

What we all want is "honesty in athletics; sport and fair play;" a condition of affairs where the man or the team that plays in accordance with the strict letter and spirit of the rules shall stand a fair show with his competitors; where the captains of our teams will, of their own accord, disqualify players for violations of rules which the officials do not happen to see; and where the mutual feeling of suspicion and distrust which so commonly prevails in many intercollegiate relationships shall give way to a feeling of confidence and esteem. And I believe.

that, now that the American people have taken hold of this question, the desired change will finally result—at least in large measure.

And what is true of football is likewise true of all our other sports, in each of which according to its prominence has grown up a series of abuses and violations, due not to the game itself, but to the spirit in which it is played. Put any game to the test that football has been put to, and were it planned by the deities themselves, evils would develop. What we most need is a different spirit in sport, and the reforms will take care of themselves.

The abuses are many; how shall they be remedied? There are, of course, two methods—the direct and the indirect. The direct where the evil is punished, the indirect where the evil is prevented. The solution lies in the application of both remedies, but the greatest good will come from the indirect, rather than the direct. If the professional trainer and coach is to be a part of our athletic systems, greater care must be used in his selection and more attention must be paid to the methods that he employs. He must be made to feel that high moral standards and the spirit of fair play are more important than victory, that, in fact, anything must be sacrificed, even the game itself, before unfair practices are either encouraged or tolerated. The players must be taught what fairness means, and the unfair boy must be clearly shown that he has no place in athletic contests between gentlemen. School and college standards in the classroom must be kept high, if the undesirable man is not to creep in. Proselyting should be taken in hand by headmasters and college faculties and driven out of business; the giving of scholarships should be very carefully done and, above all, every effort should be made to remold the ideas of what is now considered legitimate in sport. Athletics and football are too valuable to us to be abolished. The moral effect of having seven or eight hundred trained athletes scattered all thru a student body, which is the case at Harvard and which is true of all other games proportionately, is too great a factor for good to be lost.

W. T. REID, JR.

IV

FOOTBALL

It requires a certain amount of assurance for a man who never has played football to attempt to discuss all the different sides of the game. Altho football happens to be at present the best advertised of the games, it is in many respects no worse than the others. The evils of football are the evils of all intercollegiate competition at present. The evils in football, for special reasons, have finally gotten to such a pass that educators, parents, the general public, and, to a greater extent than is usually realized, the boys themselves have finally demanded changes in the game. Perhaps the fact that the boys themselves demand a change is the most encouraging and hopeful feature of the situation. As a result of this demand, changes will be made in football which will react upon all other sports.

In regard to intercollegiate athletics as a whole, I am heartily in favor of them. When my boy is old enough to go to college, I hope that he will be clever enough to get on some team and have the drill and training that come from intercollegiate athletics because all the intercollegiate sports do very fine things for the boys.

In the first place, they inculcate obedience, and the fact that boys get obedience drilled into them in football as they do in none of the other games is the reason I very much hope that the football situation is going to be changed so that the game can be continued. I have been pretty closely connected with the baseball interests here for several years, and the men who come to us from the "eleven" are almost always more obedient, more amenable to discipline, and do their work better than the men from any other sport. There are certain things about football that get the discipline into the blood.

Football, too, compels the players to become self-sacrificing.

They have to sacrifice their own glory, their own showy play for the sake of the combination play of the team. They have to obliterate themselves for the general good. They also have to sacrifice other things. The players in the big college games go thru a period of training which is, in most cases, excessive and often unnecessary. This training means a sacrifice of both social and physical pleasures. The players cannot go to the theater, or to dinners, or to dances. They cannot do a thousand things they want to do. They have to give them up for the game and the college they represent.

All games, notably football, inculcate physical courage. The effect of football, however, in developing this is indeed very much over-rated, at least by the boys themselves. Physical courage, next to dirt, is the commonest commodity there is in the world. The ability to stand pain, the ability to take a grueling punishment in a hard game, is all very well, but it does not represent a very high standard. Tho one hears in college athletics more or less about "quitting," I have seen a good deal of college athletics in the last seven or eight years, and I cannot remember more than two men who really "quit." Quitting means ordinarily to the students a lack of physical courage, altho it is really a lack of something more. You hear coaches and the players talking as if it were not rare, but in fact it is a most extraordinarily uncommon thing. Football itself encourages mere brute courage to a greater extent than any other game, because in football the spirit which makes a player "stay" with his man will often offset superior playing ability of an opponent to a greater degree than is true in any other game of skill.

Football, as well as the other games, also develops another and higher and more desirable form of courage—the courage which makes a man *do* under pressure against odds. This *having* to do under pressure, this development of tenacity and self-control is the most valuable thing which comes from athletics, and, in my experience, the men who have had this quality developed in their youth in intercollegiate athletics have gained an asset from which they obtain valuable returns all the rest of their lives, no matter what their business or profes-

sion. In my opinion, football develops this courage to no higher, if to as high, a degree as the other games.

Another good thing that football and all the sports should do is to teach the leaders, the captains, or managers, how to do administrative work, how to lead other men, both very valuable things. Unfortunately, under the present conditions, football largely fails to do this.

Football also enables a lot of young fellows to work off excessive vitality in a sport which replaces the physical labor of earlier days, instead of allowing them to loaf around and work off their vitality in other and less desirable ways.

That is the bright side of the shield. What are the evils? They are numerous. They are most marked in football for the reason that the game has been developed in such a way as to make it possible to a great degree for only a certain physical type of man to play it. The youngster, big, heavy, strong, and fast—at any rate big, heavy, and strong—is sought for the teams. Men of that sort are relatively rare between eighteen and twenty years, and, the demand being very great, the supply is much less than the demand, consequently the wish to get these desirable men is very strong, and the temptation put in the way of such men is much greater than in any other sort of athletics.

One of the evils of the game is the excessive number of injuries. Football causes a very distorted point of view in regard to the injuries. I have heard this remark: "If I could win the Yale game, I would be perfectly willing to break a leg." That is a bad point of view. The first thing to pray for in this world is good health and a sound body, and the idea that sacrifice of health or body is worth while for success in any sport seems to me a mistaken one. Up to the present time the percentage of injuries has been very high, much too high for any sport. I think, however, that the physical injuries that occur in football are the very least of the evils of the game, and that the physical injuries alone are not a sufficient reason for abolishing the game.

Other evils are far greater, and perhaps the greatest is the desire in the game to "win at any cost." It is the modern

American idea that one must "get there"—success is the thing that is appreciated most. This overwhelming desire is due in part to the publicity which is given to all sports and to football especially, so that success is imperative in the minds of the boys who are playing. The degree to which success is considered imperative is best shown in the training quarters of a "licked" team, where the spectacle is pathetic to see, how much more to feel! So, with this feeling of the necessity of winning at any cost in a game in which young fellows are brought in violent contact, and in which there is a certain amount of pain, even if no serious injuries, the players lose their tempers and do all sorts of things which, without this feeling of necessity of winning, they never would do under any circumstances. The desire is also encouraged by the reputation which is given to boys who succeed in athletics. They are, in most cases, held far above the level of the "mere scholar," not only by the public, but by the graduates and undergraduates, and often by the parents themselves. That is an unfortunate public sentiment and public spirit. We all can help to correct these erroneous ideas, but it is going to be a good many years before we get a sufficiently healthy public sentiment to depend upon that alone for the corrections of the evils of this game.

Another great evil is the solicitation of men. I want to add to what has been said by the previous speakers on this subject my testimony to the effect that, altho the degree and methods pursued vary, it is done everywhere. We hope we do less than anybody else, but it is done everywhere, in some cases by the direct paying of money, in other cases by promises of social position in college, in still other cases by opportunities for work which are paid for out of all proportion to the service rendered, and there are still other methods. Solicitation frequently is done in a very open and flagrant manner. Solicitation brings with it, however, its own punishment. It is, in my opinion, poor policy. A boy who has had that sort of attention showered upon him is as a rule a very undesirable factor in athletics, because he comes with a "swelled head" and with the idea that he cannot be dispensed with. That promptly

makes trouble in the team. As a result of solicitation, too, many of our games have come to be no longer the games of boys who are our sons or the sons of our friends, but they are the games of mercenaries, and, naturally, the institution that goes deepest into its pockets can get the best and most numerous mercenaries. The evil has extended from the college to the fitting school.

Another great evil is the coaching system, and that system practically has been a growth of relatively recent years and is due to the wish to turn out superlatively good teams. The coaching may be done by graduates or professionals. If it is done by graduates, it is done by men who should be in better business, *experto crde*. These men have to sacrifice time or money to give their services to the boys. Not only, however, may the graduate sacrifice things of greater value than the game, but he oftentimes is an extremely undesirable factor in the sport. In my opinion, the most undesirable factors of intercollegiate athletics have been some of the graduate coaches, who, when they are bad, are very, very bad, because the boys believe in them and put more confidence in what they say than they would in any professional, and so the influence is correspondingly greater for evil. Or the coaching may be done by a professional whose "business" it is to win, and he must win; if not, he will be replaced by a man who can. The influence of some professional coaches has, however, been good, at times better than that of some graduate coaches.

The point of all the coaching is this: The sports are *boys' games*, carried on as an incidental in a general education, and they ought to remain boys' games. It is true that the professional may turn out a better team, or the graduate coach may turn out a better trained team, but the charm of all amateur sports depends upon the spirit in which they are played, and not upon the perfection of playing. Moreover, the value of the games to the boys is not merely from the physical exercise, but from *having* to do, having to accomplish a given task. The result of all this coaching has been—and I see it more and more markedly every year—to make the boys "sit back" on the older men; to do their work of an afternoon, but to leave

all the brain work to the coach, whom they hold responsible for the development of the game. I think the boys should have not only the physical, but the mental training as well, and I think they are losing the mental training more and more as the years go by.

Moreover, under the present feeling of the necessity of winning, there is an enormous distraction from the college work. The aggregate amount of time that the football men were out of college duties last fall was something appalling. That was from mere injuries alone. And the distraction among the non-players who go down to cheer on and witness the games is also very great. Any teacher can bear testimony to that effect.

My own idea is that the boy who is going to take part in athletics should be held to a more rigid standard of scholarship than the other boys. He should show not only his ability as an athlete, but he should show ability to do first class college work first, and then enter into athletics as an incidental.

Taking into consideration the evils just mentioned, which are the serious ones, what is to be done about it? The first thing is to create a sensible public sentiment. We all can help to that end. Everybody who controls boys in schools or colleges can help. But public sentiment alone will not at present be enough to save a game which is under the ban, altho it may have advantages which outweigh its disadvantages. Certain things in the way of control must be done. How can they be done?

In the first place, modify the playing rules of football. That is simple and easily done, and can be done in a definite and satisfactory way. The game should be modified in such a way as to lessen the injuries, make dirty work unprofitable if it occurs, and, so far as may be, impossible. You cannot make it entirely impossible for dirty work to occur so long as human nature remains as it is, but I think that, by the making of rules which are to be *enforced*, the game can be made a fit one to play, if the men who make the rules undertake to make the changes in good faith. Sometimes the rule-makers have done as little as possible, but it is now apparent to every one

that the game is going to be fundamentally changed so that it will be satisfactory. A great trouble with the game of the past has been that it was played, not according to the rules as they stood, but according to indefinite traditions, and no two officials agreed on the traditions. An official at one of the games last season said, while walking off the field after the game: "These fellows have been kicking all the afternoon because I would not inflict a penalty for holding in the line. I think a certain amount of holding in the line is all right." The rules said there should be *no* holding. I do not agree that the making of specific and definite rules is discreditable, altho the acts which have led to the necessity of certain rules may have been.

The next thing is to lessen the publicity by confining the game to the college public as far as possible. That, of course, is a difficult thing to carry out in some ways, but it can be carried out in a measure, and I think only the graduates and undergraduates and their friends should be allowed to come. No tickets should be on sale.

The amount of money taken in at these sports should be diminished. If there is an enormous amount of money, as there has been some years, it seems mean not to indulge in certain extravagances. If you have less money, you have less professionalism, because you have not the money to spend for undesirable things.

One of the greatest changes necessary is an honest endeavor somehow to prevent all solicitation. We have already made an endeavor to put an end to some of it. I think the migration of men from one college to another should be prevented. A man who has once played upon the team of one college never should be allowed to play on the team of another college under any circumstances whatever.

The rule just passed by the athletic committee, which requires one year's residence before entering on any sport, is an admirable one. It prevents a freshman from getting his head turned by the excitement of the game so that he gets settled down before he goes into the sport, and I think the game should be confined to undergraduates of the three upper

classes of the college, and perhaps of the scientific school. I have made that remark before and caused rather acrimonious comments from gentlemen who taught undergraduates, while I teach graduates. But, it seems to me that these boys in college are younger and that they are not entirely by the play age. When they enter a professional school of any sort, it is high time that they stopped playing boys' games. They can have all the exercise they want, but they should at that time be attending to their bread and butter.

All men who have to deal in any way with such questions have their own fads. My private fad is the prevention of all coaching. I think the game should get back to simpler principles, and I think the boys ought to have not only the fun, but the work of the game, and should expend all the gray matter that is used on it themselves. It is a boys' game, pure and simple, and it is time that we gray-haired men got out of it. I do not mean by that that the gray-haired men should not have something to say about the game, but the boys should be left entirely to their own devices, as far as the playing of the games goes. The graduates should have nothing to do with that. The players should have first-class medical supervision, for very serious results may come from excessive training or from improper attention to injuries. I do not believe the time has yet come to leave the planning of the general policy entirely to the undergraduates, because, when you see the mess that the graduates occasionally make of the game, it seems a good deal to expect the much less experienced undergraduates to correct the evils.

EDWARD HALL NICHOLS

HARVARD UNIVERSITY

V

THE FUTURE OF THE COLLEGE ENTRANCE EXAMINATION BOARD

The establishment of the College Entrance Examination Board of the Middle States and Maryland was an advance in the management of the admission of students to college, not only because it made the practice of many colleges more efficient, but also because it instituted an authoritative committee, thru which future evolution may be wisely directed. Indeed, we may assume that the work which the members of this board may hope to do in making the connections between colleges and secondary schools rational in all respects is more important than the admirable work already done in systematizing and simplifying the conditions of entrance examinations. In this article I shall suggest certain possibilities for the future development of the activity of this College Entrance Examination Board on the basis of a study of the actual results of the present arrangements.

The facts which I shall present concern the records in entrance examinations and the academic careers of all the students of Columbia College entering in 1901, 1902, and 1903, and especially the relation between their success in the entrance examinations and their success in college. From these facts it will be proved that even so carefully managed examinations as these are an extremely imperfect means of estimating an individual's fitness for college. The suggestions to be made concern a simple and practicable development of the work of the College Entrance Examination Board which would remedy the defects of examination systems and still not introduce the doubtful features of the usual certificate systems.

In 1901, 1902, and 1903 there entered Columbia College 253 students who have complete, or nearly complete, records of standings in entrance examinations and who stayed in college thru the freshman year. I have complete records of

the standing thru senior year of 56 of these and complete records thru junior year of 130. Detailed reference will be made here only to the 130 students whose college history can be investigated for three years or more, tho the facts concerning the remaining 123 have been studied in detail and give abundant corroborative evidence. For each of the 130, I have a record approximately such as the following:

INDIVIDUAL X		
<i>Entrance—</i>	English.....	Reading
		Study
	Latin.....	Grammar
		Composition
		Cicero
		Vergil
		Sight Translation
	Greek....	Grammar
		Composition
		Xenophon
		Homer
	French.....	Elementary
<i>College—</i>	Mathematics....	Algebra to Quadratics
		Quadratics
		Plane geometry
	Freshman	
		English
		Latin
		Mathematics
		German
		Physics
	Sophomore	
		English
		Latin
		Mathematics
		History
		Physics
	Junior	
		English
		German
		Economics
		History
	Senior	
		English
		Philosophy
		History
		Psychology
		Economics
		Sociology

The important facts concerning the relationship of success in entrance examinations to success in college work are given in the tables at the end of this article. They prove that we cannot estimate the latter from the former with enough accuracy to make the entrance examinations worth taking or to prevent gross and intolerable injustice being done to many individuals.

For instance, 6 students out of the 130 received the same average entrance mark—61. In their college work of junior year, 1 averaged a trifle above D; 1 half-way from D to C; 1 a little above C, and 2 received A in four subjects out of five, and B in the other. In freshman and sophomore year, the range was nearly as great.

Eleven students of the 130 received in the entrance examinations marks averaging 70 in each case. In their college work of junior year, they averaged all the way from D to A.

Of the students who were in the lower half of the group in the entrance examinations, nearly 40 per cent. are found in the upper half in the last three years of college.

Of the dozen students who ranked highest in entrance, some were in the lowest fifth of the class by junior year.

If, knowing that 50 individuals ranked in the order Jones, Smith, Brown, etc., in their entrance marks, one were to wager that in the college work of, say, junior year, they would rank Jones, Smith, Brown, etc., as before, he would lose his bet in 47 cases out of the 50.

The record of eleven or more entrance examinations gives a less accurate prophecy of what a student will do in the latter half of his college course than does the college record of his brother! The correlation between brothers in intellectual ability is approximately .40, but that between standing in entrance examinations and standing in college of the same person is only .47 for junior year and .25 for senior year.

The entrance examinations also bear internal evidence of their inadequacy as measures of fitness for college. If a student who fails in his first trial of an examination gets a vastly different mark a few months or even a year later, it is clear that the examination in so far does not test capacity so much as the

carefulness of the coaching or the diligence of the candidate's cram. As a matter of fact, in 150 cases of repeated examinations, the two marks from the same student show a median difference of *over 22* (the scale of marking being the common one of 100 down to 0). The differences between the earlier and later marks of one student are greater than the difference between the marks of different students chosen at random.

Moreover, the marks on which a student is admitted are not so good a test of his fitness to do the work of the college as the marks of his first trials. If the students are ranked by their first trials of the examinations, the order corresponds much more closely to their order of achievement in college than when they are ranked by their official entrance marks.

Where there are several examinations in one general subject, such as Latin, the different marks of the same individual in the one subject vary in such eccentric ways that an individual who is marked the lowest of twenty in one is at times marked the highest of twenty in the other. The average range of difference of an individual's separate marks in Latin in the entering class of 1902 was *over 26!*

The general inadequacy of the entrance examinations from which the colleges suffer is not so important as their enormous individual inaccuracies, from which individual students suffer.

The entrance marks often utterly misrepresent the 'fitness' of a student for college work. For instance, there were 10 men out of the 130 who in their junior year got A (the highest mark given) in at least five studies. Their average marks at entrance were in some cases in the lowest tenth of the 130, barely above the passing mark. Had the passing mark been set the least bit higher, one of the very best students of the three college classes would have been debarred from entrance. There is every reason to believe that of those students who did yet worse in the entrance examinations and so were shut out, a fairly large percentage would have done better in college than a third of those who were admitted. Sooner or later there will be some one so barred out who would, if admitted, have been the best man in his class. It is a moral atrocity to decide the fitness of an individual for college by a system which,

when required to work to a moderate degree of accuracy, is wrong 47 times out of 50!

From many facts such as these, which the scientific reader can find in the tables given as an appendix, it is certain that the traditional entrance examinations, even when as fully safeguarded as in the case of those given by the College Entrance Examination Board, do not prevent incompetence from getting into college; do not prevent students of excellent promise from being discouraged, improperly conditioned or barred out altogether; do not measure fitness for college well enough to earn the respect of students or teachers, and do intolerable injustice to individuals. There is surely room for improvement.

It is unprofitable to seek a remedy in any modification of the examinations along conventional lines. Doubtless, more elaborate examinations, the employment of more readers and the like might alleviate the chief evil somewhat, but evolution in this direction is along the line of greatest resistance. It is conceivable that some of the colleges that maintain independent examinations for entrance may secure better results, tho I should expect them to be worse. I wished to study the records of 200 Harvard students in connection with the 253 Columbia records, but did not succeed in obtaining President Eliot's permission to examine the records.

The usual certificating systems are not entirely suitable to the purposes of Eastern colleges. The geographical distribution of the secondary schools which send students to, say, Amherst or Princeton makes the direct examination of schools exceedingly burdensome; the possibility that colleges might compete for the support of important secondary schools is distasteful; the attempt to introduce certification generally would probably result in a return to chaotic individualism.

Moreover, there is one fundamental weakness in both systems as practiced; in intent and in execution effort is directed solely toward keeping unfit students out rather than toward getting desirable students in. Both systems are connected partly as cause and partly as effect, with a shortsighted neglect of the fact that, for the good of the social organism (and, for

that matter, of the college, too), it is more important to give advanced education to one boy who most needs it, can profit most by it, and use it in the world's service than to prevent from entering upon it a hundred boys who are not able to measure up to its demands. Letting incompetents into college is, perhaps, poor economy, altho in a well-regulated college they do not stay long, or do more harm than they get good. But to make a college education an impossibility for the really capable boy, in whose case the education is an investment by society that will yield from a hundred to ten thousand per cent., is criminal.

My suggestion for the future development of the College Entrance Examination Board aims at securing a system that is, first of all, a positive force selecting for continued education those who deserve it; a system that will, in the second place, coöperate with secondary schools in their endeavors to improve the conditions and quality of secondary school work; a system also that will, tho rigorous, still be just; a system that will be rational and measure directly fitness for college, not the mere opinion of inspectors or the length and assiduity of study, or the ingenious art of parading knowledge in a form to beguile examiners; finally, a system that will be a natural development of existing arrangements and will make full use of the admirable organization furnished by the Middle States board.

It is, in brief, that the colleges which now intrust to the board the function of examining students, intrust to it also the function of crediting schools on the basis in each case of an examination of *the actual success in college of the candidates indorsed by that school.*

Suppose, for instance, that to the board was given authority to accredit any school whose graduates already in college had, in nine cases out of ten, done satisfactory work in their studies and been desirable members of the college community. Such an accredited school would be privileged to certify a student as "fit for college" and to certify further to what extent he had done the particular kinds of preparatory work required for the various units of the board's schedule. The new work of the board would be to obtain annually, or less often, records

from the different colleges of their students classified as Satisfactory or Unsatisfactory. These records the board would sort out in accordance with its lists of secondary schools and their indorsed graduates. Some hours' computation of percentages would complete the work. The work of college admission committees would be to treat the certificates from accredited schools precisely as they now treat the certificates of the College Entrance Examination Board. The work of the accredited school would be to secure and fill out the general certificates of fitness for college and the special certificate of having taken courses qualified to fulfill such and such particular admission specifications. Students not certificated by their schools and students from schools not accredited by the board would be examined as now.

We would have, that is, neither of the conventional admission systems, but a rigorous, continuous, and absolutely impartial examination of each school on the basis of its actual work in furnishing candidates who demonstrated their fitness for college by their work in college.

Such a system would encourage boys and girls who were in the truest sense fit for college to go there, for the fundamental certificate would be the outcome, not of a complex computation of what particular species of disciplines the pupil had undergone, but of the judgment of the teachers who knew him best that he was really fit for college. The award of this general certificate would encourage many students of first-rate capacity and promise who lacked some of the particular preparation demanded by a college to proceed to secure it. A college education would become less the consequence of early parental decision and more the consequence of demonstrated capacity. The award of the general certificate would also encourage the colleges to admit on probation a student of excellent promise who, by some accident of fortune, had not taken the college preparatory course in high school; for they could then do so without elaborate special legislation and without incurring the reproach of lowering standards. The standard of capacity would, in such cases, be as high as ever and as high as anywhere.

Such a system would improve the work of the secondary schools by setting a higher standard of attainment and at the same time abandoning prescriptive interference. The main duty of the high schools is to train boys and girls to be capable and intelligent men and women. They and the public which supports them are willing to accept also the responsibility of fitting for college the small minority of their students who will go on to an academic degree; but they ought not to be asked to fit students primarily for an arbitrary set of examinations. With such a task, they cannot be expected to resist the temptation to give up a large part of the last two years to specific coaching for the process of examination-taking. The proportion of college students who go on to professional courses is far greater than the proportion of high school students who go on to a college course, yet the colleges would think it an insane arrangement if they had to fit students for elaborate and arbitrary examinations in physiology, chemistry, bacteriology, and the like, or in the psychology of religion, ecclesiastical history, church law, and Hebrew. The examination disease can be eliminated, and with an actual raising of standards, if a school's fitness to prepare for college is measured by the actual fitness of the students it prepares.

Such a method of accrediting is obviously just to schools. Now that a perfectly trustworthy body exists to receive reports from all colleges, no school can complain if it is denied credit until the records of its graduates improve. It is also just to individuals, so far as any system which the colleges would be willing to operate can be. Occasionally an able candidate who happens to have gone to an inefficient school or to have been misjudged by his teachers, will have to run the risk of proving his ability by the unfair test of arbitrary examinations, but at present *every* able candidate has to run this risk. Occasionally, an able candidate will be held back a year longer than he ought by over-cautious teachers, but a few years will demonstrate to those high school teachers who do not already know it that success in college is dependent on capacity ten times as much as upon mere amount of high school training, and they will soon abandon the false notion that they can maintain the credit of

their school by holding back pupils. They will never abandon it under the present examination system; for under such a condition it is true; quantity of drill is a means of securing high standings in arbitrary examinations. Occasionally, a stupid boy who is misjudged by his teachers will be admitted to college, but the present system is a paradise for stupid boys—with clever tutors. A sagacious tutor can get a hundred boys into college, not one of whom he would be willing to certify to as fit to succeed there.

Such a system is rational because it measures the ability of schools to fit for college, not their ability to forearm students against the twin cataclysms of preliminary and final examinations. It puts the premium on capacity and right habits of intellectual work, rather than on the mass of information held in solution at a given week. It avoids the dangers, possible under the ordinary certificating systems, of misjudgment of schools by inadequate or eccentric inspection. It measures directly and exactly the fact we wish to measure.

Finally, such a system would be established thru a natural modification of the function of an already existing organ, thru an easy extension of the powers of the present board. No new machinery and only the simplest legislation is required. The only important change would be to add to the present duties and powers of the board the duty of rating schools by the success in college of the students they had vouched for and the power to accept from schools of a given rating a certificate that John Doe "is fit for college," and a certificate that John Doe "has done work equivalent to that recommended by the Middle States board for English 1, English 2, History 1," etc., etc. The colleges which approved the system would vote simply to accept the board's examinations of schools as they now accept its examinations of individual students. The work of the board and of college admission committees would be lightened.

Of the many administrative advantages of the plan, and of the possibility of unity of action amongst colleges throughout the country on the basis of a scheme so safe and yet so plastic, I do not care to speak, at least at this time. The system

proposed is rational, just, and practical. It positively encourages the right students to go to college instead of making laborious, but futile, efforts to keep a few incompetents out. On these facts alone I rest my case.

EDWARD L. THORNDIKE

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APPENDIX

Tables I, II, III, and IV show for each individual the relation between entrance standing and college standing. Horizontal position denotes the rank in entrance (the median of the highest eleven marks obtained). Vertical position denotes the rank in college studies (the average of the five highest marks obtained)—in Senior year in Table I, in Junior year in Table II, etc. Each figure entered in the table means so many students. Thus in Table I the 1 at the upper left-hand corner means that one student scoring 60 in entrance scored 4 in the college work of Senior year. The other 1 in the same column means that one student scoring 60 in entrance scored 21 in college work. The 1 in the next vertical column means that one student scoring 61 in entrance scored 24 in college work. The vertical column under 70 would read: Of 10 students each ranking 70 in entrance examinations, one ranked 15 in the college work of Senior year, one 16, four 18, one 19, one 21, one 22, and one 27.

The values 60, 61, 62, etc., up to 95 of the horizontal scale, are directly obtained from the entrance marks, which are given on the ordinary scale of from 100 down. The values 4, 5, 6 up to 30 of the vertical scale, are obtained from the college records of A B C D and F by taking $A=6$, $B=4$, $C=3$, $D=1$ and $F=0$ (note). Thus $30=five\ A's$, $28=four\ A's\ and\ one\ B$, $27=four\ A's\ and\ one\ C$, $26=three\ A's\ and\ two\ B's$, $25=three\ A's,\ one\ B\ and\ one\ C$, or four A's and one D, etc., etc.

Tables VB and VIB show the facts of the relationship between entrance standing and college standing of Senior and Junior years still more clearly. In these tables a black rectangle about 2.5 by .5 mm. equals one individual. The measures used were in this case the median of *all* entrance marks and the average of *all* the college marks of the given year. Tables VA and VIA show how the black rectangles would be arranged if each student's relative position in college work were the same as in entrance examinations.

NOTE— $A=10$, $B=7$, $C=5$, $D=2$, and $F=0$ would perhaps have been juster.

TABLE I

RELATION OF STANDING IN ENTRANCE EXAMINATIONS TO STANDING IN
COLLEGE—SENIOR YEAR

	60	65	70	75	80	85	90	95
4	1							
5								
6								
7								
8								
9								
10							1	
11								
12								
13								
14								
15		1	1	1	1			
16			1	1	1			
17								
18			4		2			
19			1		1	1		
20		1			1	1	1	
21	1		1	1	1			
22		1	1	1	1	1		
23								
24	1	1		2				
25				1				
26					1	1		
27			1					
28			1		1		1	
29								
30			1	3	1	3		1

TABLE II

RELATION OF STANDING IN ENTRANCE EXAMINATIONS TO STANDING IN
COLLEGE—JUNIOR YEAR

	60	65	70	75	80	85	90	95
4	1							
7			1					
8								
9				1	1			
10	1		1					
11		2	1	2	1			
12								
13		1	1	1				
14				1	1			1
15	1			1	1			
16		1	1	1	2	1	1	1
17				3	1	1		
18		1	1			3	1	
19	1			4		3		
20		2	1	3	1	1	1	1
21			1	1	1	2		1
22		1	1		1	1	1	
23				1	3	1	1	
24		1	3	1	1	2	1	1
25					1	1		1
26			1		1			1
27								
28	1			3	3	2	1	1
29			1	1	1		1	1
30			1	1	1	1	2	1

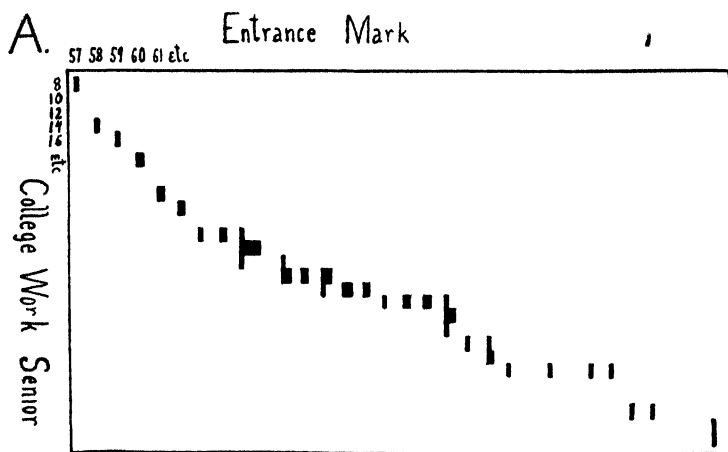
TABLE III
THE RELATION OF STANDING IN ENTRANCE EXAMINATIONS TO STANDING IN
COLLEGE WORK—SOPHOMORE YEAR

	60.	65	70	75	80	85	90	95
1		1	1	1				
2								
3								
4					1			
5			1	1				
6								
7			2			1		
8	1		1	1			1	
9		1			2	2		
10	1		1 2	1				
11		1		2				
12			1	1		1		
13		1	1	1	1			1
14	1	1	1	3				
15		1	1 1	5	1	1		
16		1	1	2	1		1	1
17		1		2		1		1
18	1	1		3	1 1 3	1 4	1	
19			1	1	1	2	1	1 1
20				2	1			
21		1	1	2		2 4	1	
22			1	1	1	1 2 1	1	1
23	1			2				
24			2		2	1	1	
25					1	2		
26					1	3 1	4	2
27		1						
28	1			1	1		1	1 1 1 1
29								
30				1			1 2	1 1

TABLE IV
THE RELATION OF STANDING IN ENTRANCE EXAMINATIONS TO STANDING IN
COLLEGE WORK—FRESHMAN YEAR

	60	65	70	75	80	85	90	95
3								
4	1	1						
5		1						
6		1	2 1	2				
7			1					
8			1		1			
9	1	1	2	1				
10			3	1	1			
11	1	1	1	1		1		
12	1	1	1	1	1			1
13		1	1 1	3	1			
14		1	2	3 1	1 2		1	
15		1		2 1	1 2	1		
16			2	1 1	1	2		
17		2	2	1 1	1 2	1		
18		1	1	1	1 4		1	
19			1	2	1 3	1		
20		1	2	2	1 3	2 1 1		
21		1	1	1 1	1 3		1	
22	1 1		1		1 2		1 1	
23			1			1 2	1	1
24				1		1	2	1
25					1		1	1
26		1		1		1	1 1	1
27					1		1	1
28								
29						1	2	1 1
30								

TABLE V
PERFECT CORRELATION



EXISTING CORRELATION

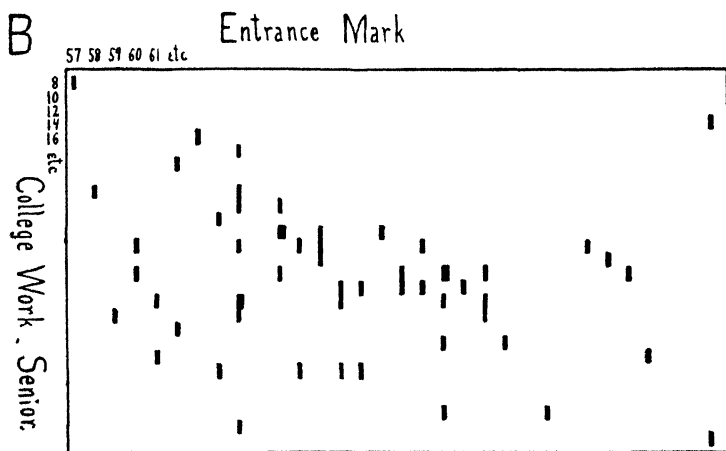
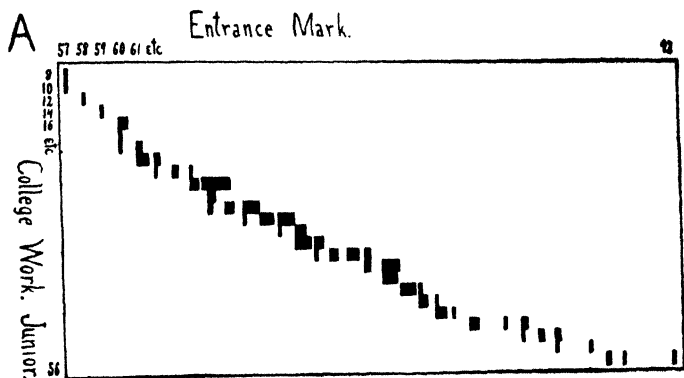
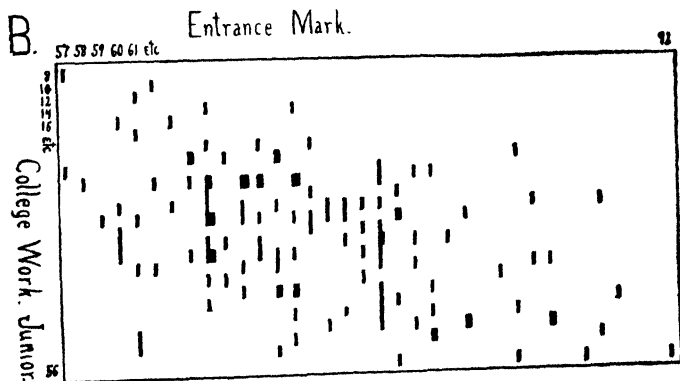


TABLE VI
PERFECT CORRELATION



EXISTING CORRELATION



VI

THE INCORRIGIBLE CHILD

The incorrigible child makes me think of the story of a band of street boys, one of whom had a big apple which he was eating alone. Six pairs of eyes, hungry and envious, watched him sadly. One lad at last could contain himself no longer: "Say, Dick," he burst out, "will yer gimme de core?" Between bites, Dick replied: "Dere ain't goin' ter be no core."

"Dere ain't goin' ter be no incorrigible child," ladies and gentlemen, when we shall have come to see that every child, properly understood and properly trained, is "good to the core." I need not define the incorrigible child. We all know him as the child that hates school, torments the teacher, demoralizes the class, disobeys the rules, and defies authority—even the laws of the state. He is present in every school, and, if reports may be relied upon, is present in ever-increasing numbers. He it is who is responsible for the nervousness and breakdown of many a teacher who succumbs to his torments. He it is who burdens and weights down the best of teachers by his presence in the class. He it is who robs the rest of the class of time and instruction by his demand upon the energy and patience of the teacher. But, "with all his faults, I love him still."

I have seen and am seeing the incorrigible boy at his worst—in a section of the congested East Side of New York City, where over twenty-five thousand school children of both sexes are housed within an area of less than half a square mile. For many years school accommodations in this section of the great metropolis have been inadequate. Even now, after eight years of constant effort on the part of recent boards of education, the number of schools is not equal to the needs of the district. For many years children had been kept upon a waiting list or sent away from school because there was no room. The compulsory

education law could not be enforced because there was no school place for the non-attendant. Have you any idea of what happens to the boy of the tenements if he is left on the streets for a year or two? Take the history of the boys committed to city or penal institutions during the last ten years and you will learn. Read the biography of the city's professional loafer and you will find out. The boy kept out of school gets his education on the streets and graduates in loaferism, gambling, and burglary by the time he is fourteen. This has been the fate of many hundreds of boys, ruined for life because of administrative niggardliness, or because of the official wickedness of those teachers and principals who attempt to maintain discipline by driving the troublesome boys out of school. But this condition has gone by in New York. "Compulsory truancy" is a thing of the past, because every child must now attend school, even tho for the younger children, in some sections owing to lack of accommodations, only part-time instruction can be afforded. In consequence of better administrative methods, hundreds of children, mainly boys, have been brought into the schools, lawless, undisciplined, untutored; fitted by age and size for the middle and upper grammar grades, unfitted in book learning for any but the lowest primary classes; ignorant as new-born babes of all that the course of study demands, wise as veterans in all street shrewdness and knowledge of the seamy side of life. Introduce five or six of these street Arabs into any class, can you not foresee the result? Tired, discouraged teachers must refer extreme cases of discipline to the principal; tired, discouraged principals must give valuable time and their best energies to the investigation and treatment of the acts of delinquents. Add to these internal burdens the additional one of the boy paroled by the Children's Court; the boy known to be a thief; the boy known by his classmates to have been arrested; the boy known by his confederates to be sent back to school unpunished; the boy whose answer to the question: "What did they do to you in court?" is, "Oh, nuttin'! De judge jest talked soft ter me," and the result is disheartening.

The incorrigible child, now counted by the score, must soon

be counted by the hundred, unless remedial and preventive measures can be immediately applied. On the one hand, there are the boys already bad, who must be reclaimed; on the other hand, there are the boys not yet corrupted, who must be saved. In every class there are children several years older than the age for which the regular grade work is designed. Think of the effect upon the boy of twelve or fourteen, who, having spent years on the street, peddling, gambling, and often stealing, is forced to attend school with forty, or fifty, or sixty little fellows of six or seven and compelled to repeat with them, "One apple and two apples are three apples." Think, too, of the effect upon these six- or seven-year-old babes associating with the boy who swears, gambles, and smokes, and who has eaten of the fruit of the tree of knowledge, of less good than evil. Let me say right here that the first-year classes are meant for the babes, and the second-year classes for those a bit older, and the child of ten, or eleven, or twelve, or older, has no right in the regular classes of the first three years, no matter how ignorant he may be of reading, writing, or arithmetic. Such a classification of the older boy has a bad subjective influence upon him, and a correspondingly bad objective influence upon the child for whom the grade work was planned.

My first recommendation, therefore, to meet these conditions, is the formation of special classes for the children over age. It will be found that, with few exceptions, so few as to be almost a negligible quantity, the incorrigible child will find his way into a special class, which at once relieves the regular classes of the most objectionable material. The teachers for special classes must obviously be selected with great care, in order to secure for these backward children the teaching power and the sympathy and the encouragement necessary to bring them forward more rapidly than is possible in the regular classes. The so-called non-essential studies should be taken from the course and the teacher's whole energy devoted to carrying the children on to meet the academic requirements of the child-labor law. Much attention, too, should be given to physical training. Promotion from group to group and from class to class should be promised and given at any time that progress is

evident, and each child be made to understand that this special grading is solely for his benefit. In New York, this experiment showed good results from the beginning. Many a boy, responding for the first time to a real interest in his welfare, began to realize the importance of trying to please his teacher; and later, not only showed interest in his work, but a real desire to learn. Many of these boys, who had been, or were destined to become incorrigible, under the old classification, were saved by being placed where work was provided suited to their years and ability, and where an earnest teacher was willing and able to give them the individual help and encouragement they needed.

The formation of special classes helped much, but it did not solve all the difficulties. The incorrigible child and the chronic truant were still too much in evidence. The former, after having had a fair trial under at least two teachers, was officially suspended by the principal. To have returned to his old school, a suspended boy, whether sinned against or sinning, would not only have had a bad effect upon other children, but it would have made it difficult for the delinquent to do his best. There is much truth in the old adage, "Give a dog a bad name and hang him." The transfer to another school was accompanied by a warning that a second suspension would result in commitment to the truant or parental school, a threat invariably executed. The principal of the school whither the boy was transferred was made acquainted with the circumstances and the boy placed, if possible, in the class of a good teacher. He was also placed on parole to the district superintendent, at whose office he was compelled to report every Saturday, bringing with him a record of daily attendance and conduct. In like manner, all chronic truants and all children placed on probation by the Children's Court were compelled to report to the district superintendent. A word of praise, a word of admonishment, a moment's friendly conversation, the loan or gift of a book, a ticket to a ball game or some good entertainment—these things give the superintendent a hold upon the parole boys and a claim which most of them will recognize. In my experience, several got to a point where they would polish their shoes, smooth

their hair, and wear collars when they came to see me. I did not always talk "soft." When a boy deserved a scolding, he got it; and he respected me all the more for it, so long as I played fair. It is "playing fair" that wins a boy's heart. On one occasion I gave a letter to a paroled boy who had removed. In this letter I asked the principal of an uptown school to place Harry in the class of a teacher who would encourage him when he tried to do what was right. I read the letter to the boy, and asked: "Do you know what I mean by that, Harry?" "Yes, you mean a teacher who won't holler at me for every little thing." It is the teacher "who hollers" at a boy or class "for every little thing" that helps to make the incorrigible child. If only all teachers could be taught to play fair!

The chronic truant gives much trouble. There are many causes which lead to truancy, and scientific treatment will eradicate much of the evil. The subject, however, merits a chapter of its own. "The call of the street" is irresistible to some boys. After two or three attempts on the part of the attendance officer to keep a truant at school, the parent and child are summoned to appear before the district superintendent. If, upon investigation, it appears that the parent is to blame, the case is dismissed upon the understanding that following the next offense the matter will be taken before a magistrate, with a request that he impose a fine upon the parent. If, owing to lack of parental control, the blame rests solely upon the boy, he is warned, placed upon parole, and, upon a repetition of the truancy, is committed to the truant school.

Unfortunately, the capacity of the two truant schools in New York is only about 180. With a school population of half a million, such an equipment is absurdly inadequate. Better accommodations are under way, but some of our troubles, past and present, are due to this inadequacy. It takes but a few weeks after the opening of the fall term to fill the truant schools; then follow other trials and commitments. In order to accommodate the newer commitments, vacancies in the truant school must be created, either by returning a good boy to his home, or by sending an exceedingly troublesome one to

some reformatory institution. This is the weakest and wickedest part of the truancy system. The boy sent home too soon invariably has a relapse. The boy sent to a correctional institution, after some months, usually comes back wholly corrupted. Intimate association with boys worse than himself corrupts the individual boy to a point almost beyond redemption. Last spring, the removal from our city of one great institution sent about a thousand children back to their homes. All under fourteen were ordered to attend school. Many of these became the most demoralizing element in the schools, and within two months the majority of those sent to my district had to be recommitted, either thru the Children's Court or thru my office. Unfortunately, however, before their recommitment, they had organized their own little gangs and had started other lads on the evil road. Many of my paroled boys, perhaps more weak than wicked, attracted by the strong personality of one or another of these young law-breakers, drifted into evil ways, and arrest often followed. For a time last spring it seemed as tho all the efforts, which for many months had been unremitting, had proved futile; complaints from the schools became more frequent; discouragement met us at every turn. The heaviest burdens were directly traceable to the "ticket-of-leave" boys from correctional institutions. With this absolute knowledge in my possession, there came a determination to keep my boys, even my "incorrigibles," out of all institutions, if possible, and to try to bring about reform in some other way. It was easy to determine that I should recommend no more for commitment; but what could I do with the bad boy? To turn him adrift was out of the question; he could not remain in the regular school; I would not send him to the truant school; consequently, a special school was needed.

The school board authorized the establishment of a special school for truant and incorrigible boys, using for the purpose a small, old-fashioned school building in my district. (The bad girl must be differently dealt with, and before long something definite, I trust, may be undertaken for her reclamation.) Altho this special school was designed solely for the most unde-

sirable material in the regular schools, it was deemed ill-advised to stigmatize it by giving it a name which might carry with it offense, either to the children enrolled or to their parents. Therefore, it goes by its old name, Public School 120, under the same general management and supervision as the regular elementary schools.

It was, of course, essential that no mistake be made in the choice of a principal. Not only was it necessary to find some one fitted to do this delicate and important work, it was quite as necessary that he or she should be willing to undertake a task so beset with trials and opportunities for discouragement. Thank God, that among the men and women in our profession there are not a few of the class Matthew Arnold characterizes as "divinely touched," and a more capable, patient, earnest, loyal, God-serving group of men and women than forms the teaching force of 120 it would be hard to find. The school was organized on the 18th of last October. The pupils were taken from a novel kind of eligible list. Every principal within my districts was directed to make a list of the most serious discipline cases among the boys in his or her school, writing out a short history of each case, and arranging the list in the order of demerit—the worst boy at the top. From this list sixty boys were selected for immediate admission, the others being admitted a week or two later. I shall never forget the impression made upon me upon my first visit to that school. About sixty boys, every one of them with a history: hardness, mistrust, ugliness, written on almost every face; a latent desire to resist authority in every heart—it seemed to me as tho I had done a cruel thing in loading such a responsibility upon the principal and her teachers. That was four months ago. Today, those same boys, and others of their kind who have since been sent to the school, are growing more and more susceptible to good influences, and I believe that from their ranks there will come boys so clearly and definitely started in the right way that many of them will develop into respectable citizens, if not even successful men. The majority of the boys, altho averaging thirteen years of age, were absolutely unfitted for intellectual work of any kind. Some could not write their names; some could not work the simplest

examples; many were chronic truants; almost all were cigarette-smokers and crap-shooters; most were liars, many were known to be thieves; profanity rolled from almost every pair of lips. One feeling, however, was strong within me, that whatever might be the effect upon the boys, the teachers, or the principal of this school, the effect upon the regular schools, brought about by the removal of this element, must be tremendously helpful.

Every incentive was offered to make the school attractive. Academic requirements were kept in the background until respect for the teacher, respect for authority, and self-respect had been, in part at least, developed. The school was a boon to those boys; boys who had been driven from pillar to post; boys who had been the disturbing influence in their classes; boys who had been beaten by their parents, with or without cause; boys who had been run down by the police; the veritable pariahs of school life. Have you any idea what it means to a boy suddenly to find himself under an influence so directed that he discovers that he is of interest to somebody; that some one cares for him; that when he tries, some one is pleased; that when he backslides, some one is grieved? This is what many of those boys found for the first time, and under the sunshine of friendly interest and thoughtful care some of the hardness that had grown about the tender spot which can be found in almost every boy's heart began to soften and to melt; as the soft spot showed its presence, the skillful teacher tenderly, carefully, prayerfully, kept on melting the hard outer crust and giving the warm spot encouragement to develop; and as the heart grew warm, something in the face changed. The hard, sullen, rebellious look has disappeared at times; occasionally there is the light of hope on the face; in a few cases the old look has entirely disappeared. Some day some of these boys, who, but for this influence in their lives, would have found their way into the House of Refuge and into other hotbeds of vice and iniquity, will be able to hold up their heads as honest, decent, law-abiding citizens. Can any greater reward come to the teacher than the knowledge that he or she has achieved this?

Success has not come in every case. One boy has already had to be given up as hopeless, not only because he would not

lend himself to any of the good influences at work, but because his influence over the other boys was so terribly demoralizing that, for their sakes, he had to be removed. His case was referred to the Children's Society. Another boy had to be sent to an asylum for mental defectives. Five or six other boys have been lost to us because of criminal conduct outside of school, which led to their arrest and commitment, by the court. Some were sent back to the regular schools at the beginning of the February term, pronounced absolutely cured by their teachers and principal. Several were carefully prepared to meet the academic requirements of the child-labor law, and they have gone out to work, now properly qualified and properly certificated. In some of these cases, the boys were carried forward thru the essentials of three or four regular grades. Many of them had keen minds and needed merely to be shown how and to be encouraged, to enable them to make astonishing progress. The boys are proud of their school, and, in most cases, a class pride has enabled them to make effort that was impossible to the individual child.

Considerable attention has been given to physical training and athletic development. One of the most astonishing phases of this work was disclosed when these boys, who had lived their lives on the street, were found to be absolutely unable to do regular physical exercises. They seemed to be utterly without muscular development; the simplest physical tasks seemed beyond them. They were awkward, unwieldy, and heavy-footed. The change in this direction has been marked. A basketball team was organized soon after the opening of the school, and the boys have learned how to do creditable team work. Their team had been practicing less than six weeks when they asked permission to compete in an inter-school contest in the district. They were, of course, beaten, because the other teams had been in practice for many months. They took their defeat amiably, but demanded that they should be taught a school cry of their own, because the winning team had its school cry.

Many incidents might be here recorded, but, for lack of time, I shall narrate only one. Philip, thirteen years of age, was placed high upon the eligible list at the time that the school

was opened. He was a chronic truant, and, at the time of his transfer, was a vagrant, not having slept at home for some time. It took two attendance officers and two teachers three weeks to find the boy and bring him into school. He remained about two hours and then ran out, and was gone for another week. Finally, he was brought back again, and this time he remained. About four weeks later, during which time he had not played truant once, and in several other ways had shown a desire to do well, he went into the principal's office, where the following conversation took place:

Boy: Say, Miss Jones, there's two fellers on my street what don't go ter school. If I make 'em come, will yer take 'em in?

Principal: Why don't they go to school?

Boy: They ain't been in no school in a long while.

Principal: Where did they use to go to school?

Boy: They didn't go ter no public, they went ter de Brud-ders'. Say, Miss Jones, won't yer take 'em in, if I make 'em come?

Principal: You can't make them come.

Boy: Now, never yer mind what I can do. Will yer take 'em in, if I make 'em come?

Principal: I'll take them.

And he went off. Next morning he came into Miss Jones's office and literally threw two boys at her, having brought them into the school, holding each by the collar. Their home was fully half a mile from the school. "Here's them two fellers. Didn't I tell yer I could bring 'em?" And he had. The two boys in question, upon investigation, were found to have been away from school for seven months, spending their entire time upon the street. They were at first irregular in attendance, but two or three visits to the home of the grandmother with whom they lived and a rather sharp letter to the father brought about reform in this direction, and they are now attending regularly. I leave it to the psychologist to discover what was Philip's motive in bringing these two boys into the fold. In my optimistic moods, I like to believe that, having felt the good influence of the school, he wished his friends to share that influence; but there are other times when I think a feeling of

envy that these boys could be on the street while he was at work may have been the dominating force. However, this is not the time to analyze motives. Three chronic truants are now attending regularly, and that in itself is justification enough for the existence of such a school as the one I have described.

One of the teachers in this special school told me that he never hesitates to talk to the boys about their bad reputation. "They knew they were bad boys," he said, "and they knew that I knew it. By comparing the results of honest life and earnest work with the results of dishonesty and idleness, I aroused a slight spirit of shame and hurt pride, and, I believe, created a little desire to do right. I appealed at first to the material side of every question of right and wrong. I talked dollars and cents as the result of work, and the lack of them as a consequence of neglect. The response was astonishing. Later, after I had gained a fair control of the class and developed some spirit of right-doing by simple talks, I tried to get the boys to do right because they wished to do so. Having grown up in New York streets myself, I am 'wise' to everything they do. I astonish them a little by a few stories about the street and make them understand that they are wasting time when they try to lie to me. In consequence, they have stopped lying, and now only exaggerate. The gymnasium and shop raised high hopes of having a fine time. These hopes were turned to use, and the boys were led to accomplishing set tasks. Their predominating characteristics are personal pride and a supersensitive feeling of injustice to themselves. By appealing to class pride, I have had an almost perfect attendance for many weeks. A boy played truant one morning; about half-past ten he came in, confessed he had been 'on the hook,' felt ashamed of having spoiled the class record, and so came in, willing to accept his punishment. I have appealed to individual pride, wherever possible, by praising every time I could find the slightest chance. Praising one boy publicly for something that others have failed to do has a good effect upon the boys who fail. They recognize the point quickly, and a rivalry for obtaining this praise is easily aroused. One boy

punched another in the eye, because that other had received from me more praise than the puncher thought he deserved. Among these boys the will is exceedingly strong. In most cases, it is perverted. The great difficulty is to overcome this perversion. The only way clear to me is to develop feeling instead. Sympathy toward them is an absolute necessity. They are quick as Topsy to notice any aversion. The teacher's reward for effort comes mainly from their ready response to personal kindness. The teaching of book knowledge is a difficult matter. The boys have a strong aversion to work at set tasks. To overcome this, all possible interest must be aroused. Here, also, the material side of life must be used as an argument. I reminded them of good jobs, fine positions, liberal salaries obtained by others because they could do just such work as I was attempting to teach. The response was astonishing. In dealing with these boys, the teacher's patience must be inexhaustible. Lack of attention and lack of application are very strong habits in the bad boy. The hope of reward proves a stronger incentive than to ordinary boys. They are born 'grafters,' and will work for prizes or pay when work for work's sake is impossible. Because of the hope of reward and some form of praise I have seen my class, as a whole, steadily working at one set task for a full hour. That alone, in my opinion, was a victory over them; that alone showed the worth of just such special treatment as we are now giving them. It is possible to make these boys worth much, altho the process is long, tedious, and, at times, very discouraging. They do not retain well anything that is taught them, except, possibly, arithmetic. This, however, should not prove discouraging, because there is enough victory for the teacher if these boys can be induced to attend regularly, obey willingly, and apply themselves to work. A premium should be placed upon effort, not knowledge. This causes the boy to try. Our work here has been difficult, but all of us feel that the school has met a great neighborhood need, and that it is achieving an immeasurable amount of good."

From all the teachers I have reports on individual progress. Every case is worthy of record: the limitations of a single

address make it impossible to do more than quote one typical case :

"S., aged fourteen, was both a truant and incorrigible. For the first few weeks he persisted in leaving his seat, walking about the room, and talking every minute of the time, except when fighting his neighbor. His main purpose seemed to be to be saucy to his teacher and to let everybody know he had no fear of punishment. He knew absolutely nothing. He could not read, and would not attempt to read. He would grow ugly if I made the mistake of asking him to do so. I found out that he liked arithmetic because he knew a little more about such work. I gave him twice as many examples as the others, assuring him that I knew he could do double the work that any other boy could do in the same time. Later, I informed him that if he could read as well as he could cipher he might stand highest in the class. He waited after school every day for private help. I began with the blackboard and a first reader ; later, a second reader. In six or seven weeks he had mastered the subject. To-day he will read any book he can lay a hand on. I consider this boy one of the best cases of reform in the school. The other day he handed me an old blankbook, and said : ' Please write in here the things you said about me. My father doesn't think it's true that I am a good boy.' Recently, he changed his seat to get next to a friend. Foreseeing the result, I said : ' S., you may, if you wish to, sit there ; but I should like to see you sitting just where I can look at you, and where I always know I can find you.' A smile came over that face, and the reply was : ' I don't care much for myself ; it's just as you want me.' Within a month this boy will be able to take out his employment certificate and will carry with him into life respect for every individual in authority. How can I help calling this a case of complete reform ? "

The following table is a fair, accurate statement of the condition of the special school on February 1st :

Total number admitted to date	.	.	.	.	.	.	.	140
Sent back to regular schools cured	.	.	.	.	.	.	.	5
Received employment certificates (3 more to go soon)	.	.	.	.	.	.	.	4
Went to work at 16th birthday	.	.	.	.	.	.	.	6

Mentally not responsible	12 ¹
" lacking (not so pronounced as former)	6 ¹
Arrested and committed by Court since admitted to 120 (2 cases still pending)	6
Arrested and paroled—ditto	7
Chronic truants before attending P. S. 120	118
No. of these absolutely cured of truancy (those not yet reformed are mainly pupils lately admitted)	100
No. thoroly reformed on all charges (of these 5 will always need special care)	33
No. improving steadily	42
" " spasmodically	32
" " but very slightly	10
" showing no improvement at all (this last item includes 6 arrested and committed and 6 not yet attending a month)	20

¹ Soon to be placed in a special class for defectives.

Surely, no further evidence is needed to convince even the most skeptical that a school of this kind would be a benefit to any community. But such schools would not be so imperatively needed, had proper measures always been applied in our regular schools and classes. If the true history of each one of these boys were written, it would be shown that many sins of commission, as well as of omission, on the part of teachers, principals, and superintendents helped to make these delinquents what they were.

I referred some time ago to the special classes for children over age. This question needs attention. The special class appeals strongly to the backward child, who has often been troublesome because he was not interested in the work of his class. An appeal to his good sense brings about a coöperation with the teacher in her efforts to carry him thru two or more grades of school work in one term. I have on hand many records, which read as follows:

"L. V., age twelve, went from 1B to 4A in five months. Extreme discipline problem before being put into special class; now an earnest worker.

"L. R., age fifteen, from 2A to 4B in five months. Bad boy before being placed in special class; now good and industrious.

"J. S., age thirteen, from 3A thru 5A in seven months. Had been very troublesome; now obedient and industrious.

"H. S., age twelve, 3A to 5A in seven months. Very disorderly before being placed in special class. Thoroly reformed."

The foregoing were all boys.

"L. S., a girl, age twelve, from 1B to 3B in five months. Previously known as a bad girl.

"S. K., age eleven, 1B to 3B in two months. Previously known as a bad girl.

"R. F., age twelve, from 2B to 4A in seven months. Troublesome and difficult to handle before being placed in special class; now gives no trouble."

And so the records run.

Is there anything that can be done for the incorrigible child, where conditions are not favorable for organized reform along the lines of special classes or special schools? Have you ever seen a number of children playing the game called "Follow Master"? The leader is chosen, or chooses himself, and the laws of the game require all that follow him to imitate exactly whatever he does or says. No matter how absurd, no matter how ridiculous, no matter how foolish, no matter how dangerous his movements may be, the game demands from all the others blind, unthinking imitation. We, at the top of our profession, are leading our principals and teachers in a great game of "Follow Master." Are we possibly leading our followers to do what is absurd, or ridiculous, or foolish, or even dangerous? There is something pathetic in the way principals and teachers try to do those things which they believe the superintendent desires them to do. Are we superintendents always leading wisely in this great game? Is it possible that, while we have been leading toward penmanship of a certain character and style; reading according to this, that, or the other method; brilliant, immediate results in arithmetic or technical grammar; marvels in the production of juvenile compositions; wonderful exhibits of manual and constructive work; high averages for promotion or graduation; or the other details which to us seem pedagogically important, that possibly we may have forgotten to lead along those lines which would have helped the incorrigible child and prevented some others from joining the ranks of the incorrigibles? Do you not feel, in this blessed privilege

of leadership that has been given to us, that if we had made it clear to those who follow that character means more than knowledge; that effort in the right direction means more than tabulated results; that the rescue of the soul of one child is a greater achievement for any teacher than the promotion or graduation of 90 per cent. of his class, that, possibly, more might have been done for the incorrigible child? Is it not time that all superintendents should declare: It is not what your children do, but what they are, that is the measure of your success; it is not the number of questions your children can successfully answer, but it is the number of temptations that they can successfully resist that proves you to have been a successful or an unsuccessful teacher.

Our poor teachers! They work so hard; they work so incessantly; and the pity of it is that so much of their energy is misdirected. Why? Chiefly because, from time immemorial, we have placed the shadow above the substance. We have prided ourselves on what has been done for the child who survives. We have never recorded what has become of the child who fell by the way. Is it not time that a higher standard be imposed? Does not this country need character more than it needs knowledge of facts? Understand, I know full well that all good teachers and good principals constantly hold before the children standards of right living, and of true worth, and that many a child is benefited thereby; but this has not prevented thousands of children from going thru school and out into life with a lack of character that is a reflection upon any school system, and that tends to lower the standards of citizenship thruout our land. We are expected, in communities largely made up of foreigners, to give correct American standards of living to the children of the alien. Are the standards of living in American communities wholly creditable? Would the general corruption in municipal government, would the general unethical basis of the commercial world be possible if correct ethical standards had been given to the men who control the affairs of the world to-day at the time we had them as little boys in school? But, as Kipling says, "That is another story," so let us get back to the incorrigible child.

There are home conditions of poverty and of degradation, or of indulgence and bad judgment, which send even the little child to us morally, if not intellectually, handicapped. It is the sacred obligation of the teacher in whose class this child is first placed to find out something of his home conditions, and, by a deeper interest, a sweeter patience, an infinite tact, to make good to that child what it failed to get by the accident of birth. Under such treatment, what do you think would be the response from the child? Do you think that the baby, under this special sympathetic treatment, would develop the germs of incorrigibility? Pass him on to the next class, and let the teacher who sends him on pass on a word of enlightenment to the next teacher, so that she, too, may take the little fellow into her heart and smooth out the path for him; and so on, term after term. Is this Utopian? I think not. But it is impossible, when the teacher lacks tact, patience, and warmth of sympathy. "The teacher who hollers at you for every little thing" is the dispenser of as much poison as is the hospital nurse who mistakes a bottle of carbolic acid for a sedative. We have reached that stage of civilization and enlightenment in municipal affairs where the first indication of contagious physical disease is detected, and the patient is removed for the protection of the rest and for the improvement of his own condition. Is it not time, then, for us to begin to train teachers to look for and detect the first symptoms of contagious discipline disease and to compel them to take proper measures to insure, not only the safety of others, but the improvement of the child in whom these symptoms have been detected? The first symptoms of contagious discipline disease—what are they? Were one to ask our teachers to answer that question honestly, I believe that a majority of the replies would give evidence that they are laying too much stress upon unimportant things. To require children to sit perfectly still, in furniture often physically uncomfortable, is, I think, the root of many of our discipline problems. To keep them at tasks lacking every element of interest increases the evil. The energy, the time, and the nervous strain expended to make children do what is not worth the doing, is appalling. I remember well, in my early teaching

days, when, in every penmanship lesson, tremendous emphasis was laid upon the proper crossing of the "t" and the accurate dotting of the "i." Most of us have repented in sackcloth and ashes for our folly in this direction, and realize now that if penmanship be free, rapid, and legible, that it makes no difference where the "t" is crossed or where the "i" is dotted; but in those days we made so much of the crossing of the "t" and the dotting of the "i" that we lost sight of the importance of freedom and speed. Are we not living thru a similar crisis in our discipline problems? Do not some of the things that teachers demand (and, remember, teachers and principals are playing the game of "Follow Master" and, as a rule, demand what they think the superintendent desires)—do not some of these things bear the same relation to true discipline that the crossing of the "t" and the dotting of the "i" bear to real penmanship? What we need is clearer vision for ourselves. A vibrating enthusiasm for any great move can be aroused in any teaching body, provided enough enthusiasm goes out from the leader to set in motion the vibrations in the mass. If we feel this to be true, and translate our feeling into our utterances, both spoken and written, can we not thereby create a public opinion that will force its way thru our utterances to the attention of the living, acting community? If, on the other hand, we feel that our official duty is discharged by the occasional commitment of an incorrigible child, instead of tracing incorrigibility to its causes and trying to remove those causes, do we not show ourselves unfit for the responsibility of leadership? It is too late to solve discipline problems when the extreme case is brought to official notice. We must begin lower down, and we must begin at once. For a time the present trouble must last, because lawlessness has been so steadily on the increase among our boys that remedial measures will be required for some time; but this same lawlessness will increase at an appalling rate, unless we capture the little ones now and remove from their lives those influences which have made the bad boy of to-day what he is. Boys already so defiant of all authority, so willful and disrespectful, as was the material out of which my special school was constructed, must be

removed and placed in small classes under specially chosen teachers.

But that is not enough. Permanent preventive work can come only from taking measures to change the standards of discipline in the entire teaching body. We must watch closely every teacher in whose class truancy and other violations of the law are most frequent, and if lack of sympathy, lack of tact, or bad temper on the part of the individual teacher is found to be responsible, in whole or in part, for these troubles, we must have the courage to prefer charges against such a teacher and remove him or her before further damage results. Drastic measures in removing two or three of the worst offenders would insure an improvement on the part of others who, by their harshness, injustice, and unkindness, are helping to embitter the school life of many a child. Emmy Lou's "Ogress" must disappear from our schools; Emmy Lou's "Dear Teacher" is needed in every room. We hear very little about the incorrigible child from "Dear Teacher." If, however, the fault does not lie with the teacher, there must be something inherently wrong in the troublesome child, or something in his environment that tends to militate against the best influences of the school. Some plan must be devised to make special provision for the proper training of such children. Children who cannot, or will not, obey the laws of a school as administered by a sane, tactful, sympathetic teacher, must be treated as diseased, and must be isolated for their own good and for the protection of others. We dare not wait until the child infected has advanced in years, with ever-increasing disrespect for authority. The disease must be treated in its incipency. Physicians have proved beyond question that a cure is possible in every case of incipient tuberculosis, if properly treated. Beyond the incipient stage, recovery is less frequent, and the danger of infection to others immeasurably greater. So, too, with our discipline problems. In the incipient stage, under proper treatment, all, or practically all, can be cured. Once allow a child to get well beyond the incipient stage of lawlessness, and recovery is not only doubtful, but the spread of the disease is a natural sequence.

It has taken years to educate the public to a proper conception of the duty of every individual toward checking the spread of the white plague. It must now become our duty to educate teachers, parents, and public opinion generally, to the fact that defiance to authority presents a greater menace to our country than does tuberculosis. The spread of moral disease is infinitely more far-reaching in its influence for evil than the spread of physical disease. If, then, it be essential for the public to help physicians stamp out incipient tuberculosis, how much more necessary is it that the same public should be appealed to to help teachers stamp out incipient lawlessness? Let me continue the comparison. What would be thought, in medical circles, of physicians and nurses charged with the care of tuberculous patients who recklessly scatter the germs of disease, instead of carefully destroying the same? What, then, must be thought of the teacher or principal, whose prime function is to train the child of to-day for future citizenship, if he recklessly scatters the germs of incipient lawlessness so that the spread of the evil is bound to follow? Such germs must be exterminated; proper preventive measures must be applied to the control of the contagion. The teacher under the influence of nervous excitement and irritability, due to conflict with the troublesome child, is recklessly scattering these germs, so that others in her class not yet contaminated are in the greatest danger. Tact, courage, sympathy, and infinite patience on the part of the teacher are the only remedies for incipient lawlessness. Teachers must learn that if the strong will of a child is set up in opposition to the teacher's mandate, insistence upon immediate surrender to the teacher's will is bound to carry with it humiliating consequences. It is far better to ignore such an outbreak, to take no notice of the child at that particular moment, and to wait for the right opportunity in which to gain the disputed point. This point is rarely gained by forcing the issue at the moment that the child is controlled by stubbornness and the teacher by temper. Many a boy has grown hard and ugly as a result of battles of this kind, when, at the moment of rebellion, the display of sympathy, tact, and judgment on the teacher's part would have resulted in future con-

trol, not only of the teacher over the child, but possibly of the child over himself.

Here, then, is one line of thought for the teacher who is tormented by an unruly boy. Possess your soul in patience and await your opportunity. How can you expect to teach a willful child self-control when you cannot control your own mood under provocation? A contest with an angry child, or with a sullen child, is bound to spread the germs of disease. Treat the case scientifically, and remember even germs cannot always be destroyed on the spot. One must carefully gather them together and carry them, as opportunity offers, to those places where their destruction is assured. If only we could learn to treat lawlessness as we treat tuberculosis!

Our poor teachers! The whole world sympathizes with their struggles. Paradoxical tho it may seem, I reserve the term "poor teacher!" for only the good teacher. The really poor teacher does not deserve much sympathy. If the recording angel is doing his duty, there will be a long account for the poor teacher to settle some day, and when that day comes—may God help her! Fifty years hence, what difference will it make what marks form the present school record of any teacher? But think of the difference if the record in the Great Beyond be a poor one! Some day each of us will stand before the Great Judge. How shall we, then, answer such questions as these? What did you do with all those little children intrusted to your guidance? How many young, erring souls did you save from destruction? These are serious thoughts, but does not the very sacredness of our work make it necessary for us to think seriously? Is there not something more to teaching than the mere assigning of tasks, the hearing of lessons, the making of records, the promoting of children, and the doing of the thousand and one things that now seem of such great importance? Is there not something higher to be aimed for? Cannot teachers be led to feel that the final aim in teaching is the directing and organizing of the entire educational process, so that every child shall find self-realization in a happy and useful manhood or womanhood? Is a happy and useful manhood or womanhood possible for the incorrigible child? Yes, but on

one condition only. All traces of incorrigibility must be removed from his character before the influence of the school is taken out of his life. This can be done; this must be done. "If it were well done when 'tis done, then 'twere well it were done quickly."

We, who are in the official position to change or dictate school policies, to shape school legislation, to guide and direct teachers, must assume our share of the responsibility, and assume it quickly. It is we who must see that every child gets tasks according to his age and needs. It is we who must see that special schools or special classes, under most carefully chosen teachers, are provided for all children who are defiant toward authority. It is we who must train teachers to give to all cases of incipient lawlessness the scientific treatment accorded to physical disease. It is we who must, if necessary, remove, or cause to have removed, all teachers who, because of temperamental defects, by their impatience and unreasonableness are driving children into truancy and defiance. It is we who must lead all teachers to see that the development of proper character in the child transcends all else in importance, and that a teacher's highest duty lies in saving the soul of the child, who otherwise might fall by the way.

There must be a change in the special attitude of the teacher toward misdemeanors and misdemeanants. On the teacher's part, there must be the yearning and eager activity to save and redeem. This activity is bound to react upon the child until it is fair to expect him to repent, or to cause him to feel the need of repentance. The child who repents can easily be saved. The proper attitude toward the misdemeanant demands that the teacher consider his obligation as a labor of pity and love. Instead of threats and condemnation, the teacher must give the chance for hope, admiration, and love to work their wonders. Even in a hardened sinner, a part of the soul often remains untainted. Think, then, what evil must result when a teacher refuses to look for and nourish the untainted part of the soul of a child. No labor of love and pity is ever wasted.

"Talk not of wasted affection, affection never was wasted;
If it enrich not the heart of another, its waters, returning
Back to their springs, like the rain, shall fill them full of refreshment."

It is this refreshment that will be the salvation of the teacher and of the incorrigible child. Affection, and not condemnation, must be the teacher's attitude. No child is so hardened that it will not respond to so gentle an emotion; no child's life so spoiled that the untainted part is beyond redemption; no child's habits so formed that a change in aim and achievement cannot be brought about. Teach every child that success cannot come to all, but that if he cannot reach success, he may still win life's first prize—character. Some day, perhaps, every teacher may learn that his or her truest mission lies in giving to the child inspiration and stimulus for right living and for the formation of true character; some day, perhaps, every child may learn that no success, that no achievement can be compared in worth to true character. When that day comes, there will be few or no discipline problems; when that day comes, pessimism will give way to optimism; when that day comes, the teacher's heaviest burden will disappear; when that day comes, there will be no incorrigible child.

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DISTRICT SUPERINTENDENT OF SCHOOLS,
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VII

THE ATTITUDE OF EUROPEAN SCHOLARSHIP TOWARDS THE QUESTION OF AN INTERNATIONAL AUXILIARY LANGUAGE

The movement for the adoption of an auxiliary international language, which has been growing in importance in Europe very steadily for the two or three last years, has now reached America and seems to progress very rapidly. Besides what may be called the popular movement in favor especially of Esperanto, another was started a few years ago among scholars and which has nothing to do with the propaganda for any of the languages proposed for the solution of the problem. It is perhaps time that we should know what has been done in the higher spheres of learning in Europe with regard to this question. The writer's intention is not to convert, but only to put before the Academic public of America a few facts which, he knows, are ignored by many. We may approve or not, but at least, for the good renown of America, let us not remain absolutely indifferent to the action taken by our European colleagues, lest we be accused of being either prejudiced or incompetent.

In 1900 the members of the various scientific congresses that met in Paris during the Exposition Universelle felt very strongly the great drawbacks resulting from the different languages used by the delegates. From several quarters the wish was expressed that an attempt be made to remedy the evil. The representatives of some of the societies then in session agreed to take the necessary steps, and they appointed a body of men who organized themselves, on January 17, 1901, under the name of The Delegation for the Adoption of an International Auxiliary Language.

The scientific bodies that started the project and elected delegates are the following:

The French Association for the Advancement of Sciences.

The Congress of the History of Sciences.

The International Congress of Philosophy.

The International Congress of Sociology.

The Philomatic Society of Paris.

The purpose of the Delegation is: (1) To ascertain whether the proposition would meet with the approval of the scholarly world at large; (2) In case of an affirmative verdict, to put the question of the selection of an International Language to serve besides the national languages, into the hands of the International Association of Academies, founded in Paris in 1900. The Academies belonging to this Association which should eventually pass judgment over and decide between the different languages proposed to serve as an international language are, arranged in the alphabetical order: The Academies and scientific bodies of Amsterdam, Berlin, Brussels, Budapest, Christiania, Copenhagen, Goettingen, Leipzig, London (Royal Society, British Academy), Munich, Paris (A. des Sciences, A. des Inscriptions, A. des Sciences Morales), St. Petersburg, Rome (Accademia dei Lincei), Stockholm, Vienna, and Washington.

The Delegation sent out, soon after its organization, the following "Declaration."

DECLARATION

The undersigned, deputed by various Congresses and Societies to study the question of an International Auxiliary Language, have agreed on the following points:

(1) There is a necessity to choose and to spread the use of an international language, designed not to replace national idioms in the individual life of each people, but to serve in the written and oral relations between persons whose mother-tongues are different.

(2) In order to fulfil its purpose usefully, an international language must satisfy the following conditions:

1st Condition: It must fulfill the needs of the ordinary intercourse of social life, of commercial communications, and of scientific and philosophic relations;

2d Condition: It must be easily acquired by every person of average elementary education, and especially by persons of European civilization;

3d Condition: It must not be one of the national languages.

(3) It is desirable to organize a general Delegation representing all who realize the necessity, as well as the possibility, of an international auxiliary language, and who are interested in its employment. This Delegation will appoint a Committee of members who can meet during a certain period of time. The purpose of this Committee is defined in the following articles.

(4) The choice of the auxiliary language belongs in the first instance to the International Association of Academies, or in case of failure, to the Committee mentioned in Article 3.

(5) Consequently the first duty of the Committee will be to present to the International Association of Academies, in the required forms, the desires expressed by the constituent Societies and Congresses, and to invite it respectfully to realize the project of an auxiliary language.

(6) It will be the duty of the Committee to create a Society for Propaganda, to spread the use of the auxiliary language which is chosen.

(7) The undersigned, being delegated by various Congresses and Societies, decide to approach all learned bodies, and all societies of business men and tourists, in order to obtain their adhesion to the present project.

(8) Representatives of regularly constituted Societies which have agreed to the present declaration will be admitted as members of the Delegation.

N. B.—The above Declaration is the sole official program of the Delegation. It constitutes the basis of understanding and course of action of the adherent Societies and Congresses which are enumerated in the circular on the State of the Delegation.

This Declaration may be signed either by societies, or by individuals. The adhesion of learned societies is especially sought for. Altogether, about two hundred societies have signed the Declaration. The Kaiserliche Akademie der Wissenschaften, in Vienna, has appointed one of its members, the world-famous philologist, Hugo Schuchardt, professor in Gratz, to follow the movement for the adoption of an international auxiliary language, and to report on it whenever necessary. (See among others his report in the "Almanac" of the Academy for the year 1904). The "Königliche Akademie gemeinnütziger Wissenschaften zu Erfurt" has given its adhesion to the two first articles of the Declaration.

The adhesion list of individuals is really more important as it reflects so much better the international character of the work of the Delegation. Moreover, the right to sign is strictly limited to persons belonging to the scientific world. Says the circular of the Delegation: "We accept signatures of only two categories of people, viz., members of learned bodies,

and members of institutions of higher learning, in order to limit the domain of our petition and maintain for it the highest standard." Of course, the central committee being in Paris, the propaganda has met with particularly great success there. French scholars having personally signed the Declaration lead most decidedly as far as quantity is concerned. We have, for instance:

Académie Française: M. Lavissee.

Académie des Inscriptions et Belles-Lettres: M. Chavannes.

Académie des Sciences: MM. Appell, d'Arsonval, Bonnier, Duclaux, directeur de l'Institut Pasteur, Lévy, Lippmann, Perrier, directeur du Muséum, Poincaré, Roux, Général Sébert, S. A. S. le Prince de Monaco, Méray, etc. (37 in all).

Académie des Sciences morales et politiques: MM. Bergson, Espinas, Fr. Passy, Renouvier, Tarde, Adam, Naville (9 in all).

Académie de Médecine: MM. Blanchard, Javal, Lannelongue, Richet (7 in all).

There are 8 professors of the Collège de France, 8 of the Faculté de Médecine, 12 of the Faculté des Sciences, 11 of the Faculté des Lettres, 11 of the Ecole Normale supérieure, 12 of the Ecole Polytechnique, 6 of the Muséum, 10 of the Collège libre des sciences sociales, etc.

The "Recteur" of the Université de Paris, M. Liard, has recently given his signature, with his warm approbation for the efforts of the Delegation.

We cannot think of mentioning the more than seven hundred signers of the petition. They are found (in the alphabetical order) in Berlin, Berne, Bologna, Bordeaux, Brussels (17 members of the Académie Royale des Sciences, des Lettres, et des Beaux Arts; 24 University professors), Buenos-Ayres, Cracow (2 members of the Academy of Sciences), Dijon (53 University professors, among whom the Recteur), Edinburgh, Fribourg, Gand (32 University professors), Geneva (18 University professors), Genoa, Grenoble (26 University professors), Helsingfors, Kiel, Christiania, Leipzig (7 members of the Königlische Gesellschaft der Wissenschaften, among them Ostwald, who lectured last winter at Harvard), Lille

(18 professors, and the Recteur), Lima (63 professors), Lyons (60 professors), Marseilles (67 professors), Milan, Modena, Nancy (24 professors and the Recteur), Naples, Pisa, Prague (4 members of the Akademie der Wissenschaften), Rome, St. Petersburg, Stuttgart, Turin, Vienna (2 members of the Kais. Akad. der Wiss.), Zürich, and a good many other places.

Among the periodicals which have discussed the subject from a purely scientific point of view may be mentioned, besides the *Almanac* of the Kaiserliche Akademie der Wissenschaften of Vienna, the *Indogermanische Forschungen*, the *Revue Internationale de l'Enseignement*, the *Revue de Métaphysique et de Morale*, the *Revue Philosophique*, the *Monist*.

Only a few words need be added as comments upon the previous statements. Of course some Americans know about the work of the Delegation, especially thru the influence of Professor Ostwald. Soon after his arrival in this country, the distinguished guest of Harvard University got the signatures of 13 members of the American Academy of Arts and Sciences, in Boston, and of 19 members of the Academy of Sciences, in Washington—probably he has more by this time. But the name of Mr. Ostwald is almost entirely identified with the cause of Esperanto, *which ought to be kept separate from that of the Delegation*. We know also that some of the greatest scholars in Europe, as Mr. Ostwald, have grown impatient at the timid attitude of some of their colleagues. Berthelot, for instance, signed the Declaration, but he went over to Esperanto at once, and now publishes occasionally in this language in the *Internacia Scienco Revuo*; together with him went men like Brouardel, d'Arsonval, Poincaré, Richet. In England Sir William Ramsay did the same thing. A new Esperanto review, a medical journal, was just added to the list of publications in Esperanto; and a sociological review will begin to appear in May, 1906.

But here exactly is the point, and this prompted us to bring the above facts before the academic public of America without more delay. We should think that the intellectual public of our universities owes it to itself to look into the question raised by the International Delegation,—a question in which they are

themselves so much interested for their studies. Scholars have already too much the reputation of being extra-conservative in their opinions; it is not desirable to encourage such feelings around us, especially in a country where so frequently complaints are heard to the effect that the value of science is not recognized by the general public.

The situation is this: Is the problem of the international language now before the public—this is a fact that cannot be denied—to be solved (no matter whether in the negative or in the affirmative) with the cooperation of the educated classes, or in spite of them?

ALBERT SCHINZ

BRYN MAWR COLLEGE,
BRYN MAWR, PA

NOTE—Information regarding the work of the Delegation, together with blanks of subscription, can be obtained from M. L. Couturat, of the Université de Paris, 7 rue Nicole, Paris. The writer has agreed to keep subscription blanks for circulation in American universities and colleges.

VIII

THE DEBATE IN THE HOUSE OF REPRESENTATIVES ON THE BILL TO INCORPORATE THE NATIONAL EDUCATION ASSOCIATION

(From the *Congressional Record*, Monday, April 2, 1906)

Mr. Southwick—Mr. Speaker, I move to suspend the rules and pass the bill H. R. 10501 as amended.

The Speaker—The gentleman from New York moves to suspend the rules, agree to the amendments, and pass the bill which the Clerk will report.

The Clerk read as follows :

A bill (H. R. 10501) to incorporate the National Education Association of the United States.

Be it enacted, etc., That the following named persons, who are now the officers and directors and trustees of the National Educational Association, a corporation organized in the year 1886, under the act of general incorporation of the revised statutes of the District of Columbia, namely : Nathan C. Schaeffer, Eliphalet Oram Lyte, John W. Lansinger, of Pennsylvania ; Isaac W. Hill, of Alabama ; Arthur J. Matthews, of Arizona ; John H. Hinemon, George B. Cook, of Arkansas ; Joseph O'Connor, Josiah L. Pickard, Arthur H. Chamberlain, of California ; Aaron Gove, Ezekiel H. Cook, Lewis C. Greenlee, of Colorado ; Charles H. Keyes, of Connecticut ; George W. Twitmyer, of Delaware ; J. Ormond Wilson, William T. Harris, Alexander T. Stuart, of the District of Columbia ; Clem Hampton, of Florida ; William M. Slaton, of Georgia ; Frances Mann, of Idaho ; J. Stanley Brown, Albert G. Lane, Charles I. Parker, John W. Cook, Joshua Pike, Albert R. Taylor, Joseph A. Mercer, of Illinois ; Nebraska Cropsey, Thomas A. Mott, of Indiana ; John D. Benedict, of Indian Territory ; John F. Riggs, Ashley V. Storm, of Iowa ; John W. Spindler, Jasper N. Wilkinson, A. V. Jewett, Luther D. Whittemore, of Kansas ; William Henry Bartholomew, of Kentucky ; Warren Easton, of Louisiana ; John S. Locke, of Maine ; M. Bates Stephens, of Maryland ; Charles W. Elliot, Mary H. Hunt, Henry T. Bailey, of Massachusetts ; Hugh A. Graham, Charles G. White, William H. Elson, of Michigan ; William F. Phelps, Irwin Shepard, John A. Cranston, of Minnesota ; Robert B. Fulton, of Mississippi ; F. Louis Soldan, James M. Greenwood, William J. Hawkins, of Missouri ; Oscar J. Craig, of Montana ; George L. Towne, of Nebraska ; Joseph E. Stubbs, of Nevada ; Charles Klock, of New Hampshire ; James M. Green, John Enright, of New Jersey ; James M. Light, of New Mexico ; James H. Canfield, Nicholas Murray Butler, William H. Maxwell, Charles R. Skinner, Albert P. Marble, James C. Byrnes, of New York ; James Y. Joyner, Julius Isaac Foust, of North Carolina ; Pitt Gordon Knowlton, of North Dakota ; Oscar T. Corson, Jacob A. Shawan, Wells L. Griswold, of Ohio ; Edgar S. Vaught, Andrew R. Hickam, of Oklahoma ; Charles Carroll Stratton, Edwin D. Reisler, of Oregon ; Thomas W. Bicknell, Walter Ballou Jacobs, of Rhode Island ; David B. Johnson, Robert P. Pell, of South Carolina ; Moritz Adelbert Lange, of South Dakota ; Eugene F. Turner, of Tennessee ; Lloyd E. Wolfe, of Texas ; David H. Christensen, of Utah ; Henry O. Wheeler, Isaac Thomas, of Vermont ; Joseph L. Jarman, of Virginia ; Edward T. Mathes, of Washington ; T. Marcellus Marshall, Lucy Robinson, of West Virginia ; Lorenzo D. Harvey, of Wisconsin ; Thomas T. Tynan, of Wyoming ; Cassia Patton, of Alaska ; Frank H. Ball, of Porto Rico ; Arthur F. Griffiths, of Hawaii ; C. H. Maxson, of the Philippine Islands, and such other persons as now are or may hereafter be associated with them as officers or members of said association, are hereby incorporated and declared to be a body corporate of the District of Columbia by the name of the "National Education Association of the United States," and by that name shall be known and have perpetual succession with the powers, limitations, and restrictions herein contained.

SEC. 2. That the purpose and object of the said corporation shall be to elevate the character and advance the interests of the profession of teaching, and to promote the cause of education in the United States. This corporation shall include the National Council of Education and the following departments, and such others as may hereafter be created by organization or consolidation, to wit : The departments, first, of superintendence ; second, of normal schools ; third, of elementary education ; fourth, of higher education ; fifth, of manual training ; sixth, of art education ; seventh, of kindergarten education ; eighth, of music education ; ninth, of secondary

education, tenth, of business education, eleventh, of child study; twelfth, of physical education, thirteenth, of natural science instruction, fourteenth, of school administration; fifteenth, the library department, sixteenth, of special education; seventeenth of Indian education, the powers and duties and the number and names of these departments and of the National Council of Education may be changed or abolished at the pleasure of the corporation as provided in its by-laws.

SEC. 3. That the said corporation shall further have power to have and to use a common seal and to alter and change the same at its pleasure, to sue or to be sued in any court of the United States or other court of competent jurisdiction, to make by-laws not inconsistent with the provisions of this act or of the Constitution of the United States, to take or receive whether by gift, grant, devise, bequest, or purchase, any real or personal estate, and to hold, grant convey hire, or lease the same for the purposes of its incorporation, and to accept and administer any trust of real or personal estate for any educational purpose within the objects of the corporation.

SEC. 4. That all real property of the corporation within the District of Columbia, which shall be used by the corporation for the educational or other purposes of the corporation as aforesaid, other than the purposes of producing income, and all personal property and funds of the corporation held, used, or invested for educational purposes aforesaid, or to produce income to be used for such purposes shall be exempt from taxation. *Provided, however,* That this exemption shall not apply to any property of the corporation which shall not be used for or the income of which shall not be applied to the educational purposes of the corporation. *And provided further,* That the corporation shall annually file with the Commissioner of Education of the United States a report in writing stating in detail the property, real and personal, held by the corporation, and the expenditure or other use or disposition of the same, or the income thereof, during the preceding year.

SEC. 5. That the membership of the said corporation shall consist of three classes of members—namely, active, associate, and corresponding—whose qualifications, terms of membership, rights, and obligations shall be prescribed by the by-laws of the corporation.

SEC. 6. That the officers of the said corporation shall be a president, twelve vice-presidents, a secretary, a treasurer, a board of directors, an executive committee, and a board of trustees.

The board of directors shall consist of a president, the first vice-president, the secretary, the treasurer, the chairman of the board of trustees and one additional member from each State, Territory, or District, to be elected by the active members for the term of one year, or until their successors are chosen and of all life directors of the National Educational Association. The United States Commissioner of Education, and all former presidents of the said association now living, and all future presidents of the association hereby incorporated at the close of their respective terms of office, shall be members of the board of directors for life. The board of directors shall have power to fill all vacancies in their own body, shall have in charge the general interests of the corporation, excepting those herein intrusted to the board of trustees, and shall possess such other powers as shall be conferred upon them by the by-laws of the corporation.

The executive committee shall consist of five members, as follows. The president of the association, the first vice-president, the treasurer, the chairman of the board of trustees, and a member of the association, to be chosen annually by the board of directors, to serve one year. The said committee shall have authority to represent and to act for the board of directors in the intervals between the meetings of that body, to the extent of carrying out the legislation adopted by the board of directors under general directions as may be given by said board.

The board of trustees shall consist of four members, elected by the board of directors for the term of four years, and the president of the association, who shall be a member *ex officio* during his term of office. At the first meeting of the board of directors, held during the annual meeting of the association at which they were elected, they shall elect one trustee for the term of four years. All vacancies occurring in said board of trustees, whether by resignation or otherwise, shall be filled by the board of directors for the unexpired term, and the absence of a trustee from two successive annual meetings of the board shall forfeit his membership.

SEC. 7. That the invested fund now known as the "Permanent fund of the National Educational Association" when transferred to the corporation hereby created, shall be held by such corporation as a permanent fund and shall be in charge of the board of trustees, who shall provide for the safe-keeping and investment of such fund, and of all other funds which the corporation may receive by donation, bequest, or devise. No part of the principal of such permanent fund or its accretions shall be expended, except by a two-thirds vote of the active members of the association, present at any annual meeting, upon the recommendation of the board of trustees, after such recommendation has been approved by vote of the board of directors, and after printed notice of the proposed expenditure has been mailed to all active members of the association. The income of the permanent fund shall be used only to meet the cost of maintaining the organization of the association and of publishing its annual volume of proceedings unless the terms of the donation, bequest, or devise shall otherwise specify, or the board of directors shall otherwise order. It shall also be the duty of the board of trustees to issue orders on the treasurer for the payment of all bills approved by the board of directors, or by the president and secretary of the association acting under the authority of the board of directors. When practicable the board of trustees shall invest as part of the permanent fund, all surplus funds exceeding \$500 that shall remain in the hands of the treasurer after paying the expenses of the association for the previous year, and providing for the fixed expenses and for all appropriations made by the board of directors for the ensuing year.

The board of trustees shall elect the secretary of the association, who shall also be

secretary of the executive committee, and shall fix the compensation and the term of his office for the period not to exceed four years.

SEC. 8. That the principal office of the said corporation shall be in the city of Washington, D. C.: *Provided*, That the meetings of the corporation, its officers, committees, and departments, may be held, and that its business may be transacted and an office or offices may be maintained elsewhere within the United States, as may be determined by the board of directors, or otherwise, in accordance with the by-laws.

SEC. 9. That the charter, constitution, and by-laws of the National Educational Association shall continue in full force and effect until the charter granted by this act and until new by-laws shall be adopted, and that the present officers, directors, and trustees of said association shall continue to hold office and perform their respective duties as such until the expiration of the terms for which they were severally elected or appointed, and until their successors are elected. That at such annual meeting the active members of the National Educational Association, then present may organize and proceed to accept the charter granted by this act and adopt by-laws, to elect officers to succeed those whose terms have expired or are about to expire, and generally organize the "National Education Association of the United States," and that the board of trustees of the corporation hereby incorporated shall thereupon, if the charter granted by this act shall be accepted, receive, take over, and enter into possession, custody, and management of all property, real and personal, of the corporation heretofore known as the National Educational Association, incorporated as aforesaid under the Revised Statutes of the District of Columbia, and all its rights, contracts, claims, and property of every kind and nature whatsoever; and the several officers, directors, and trustees of such last-named association, or any other person having charge of any of the securities, funds, books, or property thereof, real or personal, shall on demand deliver the same to the proper officers, directors, or trustees of the corporation hereby created: *Provided*, That a verified certificate executed by the presiding officer and secretary of such annual meeting, showing the acceptance of the charter granted by this act by the National Educational Association shall be legal evidence of the fact, when filed with the recorder of deeds of the District of Columbia: *And provided further*, That in the event of the failure of the association to accept the charter granted by this act at said annual meeting, then the charter of the National Educational Association and its corporate existence shall be, and are hereby, extended until the 1st day of July, 1907, and at any time before said date its charter may be extended in the manner and form provided by the general corporation law of the District of Columbia.

SEC. 10. That the rights of creditors of the said existing corporation, known as the National Educational Association, shall not in any manner be impaired by the passage of this act, or the transfer of the property heretofore mentioned, nor shall any liability or obligation, or the payment of any sum due or to become due, or any claim or demand, in any manner, or for any cause existing against the said existing corporation, be released or impaired; and the corporation hereby incorporated is declared to succeed to the obligations and liabilities, and to be held liable to pay and discharge all of the debts, liabilities, and contracts of the said corporation, so existing, to the same effect as if such new corporation had itself incurred the obligation or liability to pay such debt or damages, and no action or proceeding before any court or tribunal shall be deemed to have abated or been discontinued by reason of this act.

SEC. 11. That Congress may from time to time alter, repeal, or modify this act of incorporation, but no contract or individual right made or acquired shall thereby be divested or impaired.

Mr. Sullivan of Massachusetts—Mr. Speaker, I demand a second.

Mr. Southwick—I ask unanimous consent, Mr. Speaker, that a second may be considered as ordered.

The Speaker—Is there objection? [After a pause.] The Chair hears none. The gentleman from New York is entitled to twenty minutes, and the gentleman from Massachusetts is entitled to twenty minutes.

Mr. Southwick—Mr. Speaker, this bill is intended to incorporate the National Education Association of the United States, and thereby change the title of the National Educational Association of the District of Columbia, the present title of the association. In other words, the primary object of the bill is to give the association a national title which will comport with its real character, inasmuch as the association embraces the forty-five States of the Union in its membership. That is the principal object of the bill.

Mr. Shackleford—Do you say that this association is already incorporated?

Mr. Southwick—It is already incorporated in the District of Columbia, under the law of the District of Columbia, as the National Educational Association of the District of Columbia.

Mr. Tawney—And the charter expired last February.

Mr. Butler of Pennsylvania—Mr. Speaker, I desire to ask the gentleman a question.

Mr. Southwick—I yield to the gentleman.

Mr. Butler of Pennsylvania—What changes are made in this proposed law from the old law? Will you be kind enough to inform us?

Mr. Southwick—The association has already been incorporated in the District of Columbia, and this bill is intended to give it a national title by act of Congress. Instead of being the National Educational Association of the District of Columbia, it will be known as the "National Education Association of the United States."

Mr. Butler of Pennsylvania—That is the only change between the old law and the proposed law?

Mr. Southwick—That is the only change, in this respect.

Mr. McCall—I would like to ask the gentleman a question.

Mr. Sullivan of Massachusetts—Mr. Speaker, I ask for order; I would like to know what is going on over there.

Mr. McCall—I would like to inquire whether this act or bill is not favored by the leading educators of the United States?

Mr. Southwick—The bill is certainly favored by the leading educators of the United States.

Mr. Sullivan of Massachusetts—Mr. Speaker—

The Speaker—For what purpose does the gentleman rise?

Mr. Sullivan of Massachusetts—I rise to ask for order, so that we may be able to know the question which the gentleman from Massachusetts has propounded. I would like to hear.

The Speaker—The House is in exceptionally good order.

Mr. McCall—I inquired of the gentleman whether this legislation was not favored by the leading educators of the United States, and I understood him to say it was; and I wish to add that I have received a letter from President Eliot, of Harvard University, in which he expresses himself as strongly in favor of this bill.

Mr. Southwick—Mr. Speaker, I would state, for the information of the gentleman from Massachusetts, that the Committee on Education has received hundreds of letters and telegrams from all sections of the Union in favor of this bill, and that but a single discordant note has been heard, and that on the part of one lady from Chicago, who insisted on appearing before the committee and being heard. The committee gave the lady a full hearing of over two hours; and after having discussed her argument fully, the committee reported this bill unanimously to the House.

Mr. Butler of Pennsylvania—This is a unanimous report?

Mr. Southwick—Yes.

Mr. Dalzell—Does this involve any extension of the powers of the corporation?

Mr. Southwick—This does not involve any extension of the powers of the association, nor does it involve the Government of the United States in the expenditure of one dollar, directly or indirectly.

Mr. Graham—I will just state, in corroboration of the gentleman from Massachusetts, that I have received a number of letters from leading educators in Pennsylvania, especially western Pennsylvania, favoring this bill.

Mr. Southwick—I dare say that almost every Member of this House has received letters or telegrams from his constituents in favor of this measure.

Mr. Gaines of Tennessee—Will the gentleman yield?

Mr. Southwick—I yield to the gentleman from Tennessee.

Mr. Gaines of Tennessee—You say this association has been previously incorporated?

Mr. Southwick—Yes; for twenty years.

Mr. Gaines of Tennessee—Where?

Mr. Southwick—In the District of Columbia.

Mr. Gaines of Tennessee—Under the District laws?

Mr. Southwick—Under the District laws.

Mr. Gaines of Tennessee—Why do you want to incorporate it by a national law?

Mr. Southwick—It is proposed to reincorporate it.

Mr. Gaines of Tennessee—What is the matter with the present charter? A Member—It has expired.

Mr. Southwick—The purpose is that the association shall be reincorporated in the District of Columbia, but with a national title, in order to make the title of this association comport with its real nature.

Mr. Gaines of Tennessee—Why have you changed the name?

Mr. Southwick—The Committee on Education embraces a great deal of legal talent, but I myself am not a lawyer. During the four days' careful attention which we gave to the subject the room of the Committee on Education reminded me of the Supreme Court of the United States; and in order that the gentleman may be fully answered I will yield five minutes to my colleague from North Carolina [Mr. Webb].

Mr. Gaines of Tennessee—The gentleman has gotten almost red in the face and seems a little unpleasant about his answers.

Mr. Southwick—Oh, no.

Mr. Gaines of Tennessee—"The gentleman from Tennessee" is a lawyer and is trying to ask some questions about your bill.

Mr. Southwick—Will the gentleman kindly refer his questions to the gentleman from North Carolina [Mr. Webb], who is a lawyer?

Mr. Gaines of Tennessee—I will do so.

Mr. Southwick—I reserve the balance of my time.

Mr. Webb—Mr. Speaker, I fear that several Members are frightened on account of the name of this association. I assure them that there is nothing unusual in this name. If you will look on page 3 of the bill you will find that these men, two from each State, "are hereby incorporated and declared to be a body corporate of the District of Columbia by the name of the 'National Education Association of the United States.'"

Mr. Shackelford—What is the capital stock?

Mr. Webb—There is no capital stock, not a share of it. It is purely an altruistic institution for the upbuilding of education in the United States.

It is in no sense a commercial organization, but devoted entirely to disseminating education.

Mr. Shackelford—It has some regulations about contracts and also the right to sue and be sued.

Mr. Webb—Yes. We could not well incorporate it without granting this power, which every corporation whether State or national has.

Mr. Shackelford—And its property is to be exempt from taxation in certain places.

Mr. Webb—Yes; in the District of Columbia only.

Mr. Shackelford—Is it contemplated to hold property outside of the District of Columbia?

Mr. Webb—They can hold it by donation or gift.

Mr. Shackelford—And wherever they do hold it it is to be absolutely exempt from any State or local taxes?

Mr. Webb—No; it is only free from taxation in the District of Columbia. We would have no right to attempt to exempt it from taxation elsewhere, and hence we do not in this bill. Its property in each State is subject to the tax laws of the States, but many States do not tax property held for educational purposes.

Mr. Shackelford—Why could they not become incorporated under the District laws as they now are?

Mr. Webb—They could.

Mr. Shackelford—Under the same name they now have?

Mr. Webb—Yes.

Mr. Sullivan of Massachusetts—If I may interrupt the gentleman, I will say for the information of the gentleman from Missouri that it is incorporated now under the laws of the District of Columbia.

Mr. Webb—Mr. Speaker, I can not yield my time to the gentleman from Massachusetts, who has twenty minutes of his own, when I have only five. The gentleman from Massachusetts has twenty minutes, and he will make himself clearly understood in that time, I have no doubt.

Mr. Henry of Texas—What is the caption of this corporation?

Mr. Webb—The National Education Association of the United States.

Mr. Henry of Texas—Is it authorized to do business outside of the District of Columbia—in other words, is it a District of Columbia corporation or a corporation intended to operate and be effective beyond the limits of the District of Columbia?

Mr. Webb—It is a corporation with the same rights and powers and duties as if it were incorporated under the laws of the District of Columbia or any State.

Mr. Henry of Texas—Then it is authorized to go beyond the confines of the District of Columbia and do business outside of the District?

Mr. Webb—Most assuredly so. State corporations have this power also. It is a corporation or association of about 2,000 educators from all over the United States.

Mr. Henry of Texas—We have had this question before us, and we have restricted corporations to the District of Columbia; and looking up the

precedents we found that that was the uniform practice, except with reference to two or three corporations which had slipped through without discovery.

Mr. Webb—Congress has passed a bill incorporating the Carnegie Institute, almost on all fours with this, and to incorporate a General Educational Association, almost similar in every respect to this. This was done in the Fifty-eighth Congress. Now, Mr. Speaker, we give to this association no more powers than any State would give or the District of Columbia would give. The only addition or advantage that our incorporation here gives is to add the prestige to it of having been incorporated by Congress. It is such a distinguished body of educators, composed of leading men all over the United States and thousands of teachers, it is simply an act of courtesy that Congress should pass this bill.

Mr. Gaines of Tennessee—Will the gentleman yield?

Mr. Webb—I will.

Mr. Gaines of Tennessee—Will that deprive some other association of educators from being incorporated under the same name?

Mr. Webb—Not at all. Oh, they could not take the same name—that is, the identical name.

Mr. Gaines of Tennessee—Exactly; that is the objection to their taking the words “United States.” That is what I am getting at.

Mr. Webb—Who would want to take the same name? If you should incorporate under the laws of the District of Columbia, it would have the same effect so far as infringing on the name is concerned. No corporation can take another’s name from it. You can have the same powers, but not the same name; but this act does not prevent the use of the words “United States” in connection with the name of any other educational organization or association.

Mr. Goldfogle—Will the gentleman yield for a question?

Mr. Webb—I will.

Mr. Goldfogle—Why do you not incorporate under the general laws of the District of Columbia?

Mr. Webb—Why did not the Carnegie Institute incorporate under the general law of the District?

Mr. Goldfogle—What is the object of a special charter for this institution?

Mr. Webb—Nothing except to give the association the added prestige which comes from Congressional incorporation. It is entitled to it. It is composed of educators throughout the United States, and it is a national association in the scope and character of its work and membership.

Mr. Goldfogle—What special powers are given to them?

Mr. Webb—None. This body of 2,000 educators met two years ago and asked that this charter be given by this Congress. They want the charter from Congress in order to give them the added prestige.

Mr. Goldfogle—Wouldn’t they get the prestige necessary if they incorporated under the laws of the District of Columbia; and wouldn’t they stand just as well as any other corporation under the general laws?

Mr. Webb—They do not think so; they would have the same power, but not the same prestige; and this is the only institution of its kind in America. The incorporators are leading educators from every State in the Union; its membership is composed of teachers in every State.

Mr. Shackelford—Mr. Speaker, a parliamentary inquiry.

The Speaker—The gentleman will state it.

Mr. Shackelford—Is it too late for me to raise the point of order against this bill, that it has been reported from the wrong committee?

The Speaker—This is a motion to suspend the rules and pass the bill. It would not be in order for the gentleman to make the point at this time.

Mr. Webb—Now, Mr. Speaker—

The Speaker—The time of the gentleman from North Carolina has expired.

Mr. Southwick—I yield the gentleman from North Carolina two minutes more.

Mr. Webb—As I said, Mr. Speaker, this organization is composed of the heads of universities, North and South, East and West, and the heads of other great colleges, and thousands of earnest teachers, and every one of these members, excepting about fifteen, ask this Congress to pass this bill. There is one person, whose name will no doubt appear in this discussion later, who has caused most of the opposition and made the objection to this bill. They want to scare Democrats and mislead Republicans by saying that the name is something that does not sound well, when, actually, there is no more power given in the charter than they could get from New Jersey, or North Carolina, or any other State.

Mr. Goldfogle—Is there not a special power given to acquire and dispose of property?

Mr. Webb—No. I want to say that the Committee on Education considered this bill patiently for four days and considered it carefully. We amended it where we thought it ought to be amended, and we brought in a unanimous report. The committee heard all this opposition that is made to the bill, and had before it the person who is responsible for the fight that is now being made against the measure.

The bill is almost an exact copy of the charter under which this organization has operated and existed for twenty years, and we provide in this bill that it shall not be effective until the present association shall adopt it at an annual meeting. Can you suggest a fairer provision? Here are some letters from distinguished educators of the South urging the passage of the bill. You have heard from the North. Here is one from the University of Virginia, President Alderman; from the University of North Carolina, President Venable; from the Agricultural and Mechanical College at Raleigh, N. C., Doctor Winston, and a handful of other letters from other teachers and educators. This society is an educational institution purely national in its scope. All they ask is to give it the prestige of passing a bill for its incorporation by Congress.

Mr. Shackelford—Mr. Speaker, is it subject to amendment—that charter?

Mr. Webb—Why, certainly. Congress can amend it any time.

Mr. Goldfogle—Will the gentleman from North Carolina kindly refer to the provision that authorizes a modification?

The Speaker—The time of the gentleman has expired.

Mr. Webb—Mr. Speaker, I see no reason why this bill should not pass.

Mr. Southwick—Mr. Speaker, I will ask that the opposition consume some of its time now.

Mr. Goldfogle—Mr. Speaker—I would like to ask the gentleman from New York a question.

The Speaker—Does the gentleman yield?

Mr. Southwick—No.

Mr. Sullivan of Massachusetts—Mr. Speaker, in ten minutes' debate I have not heard in Congress so much misinformation as I have heard in the last ten minutes. We have been told solemnly by the gentleman from New York [Mr. Southwick] and the gentleman from North Carolina [Mr. Webb] that there are no changes in the charter of this corporation from the provisions of the existing charter. Why, Mr. Speaker, if any Member of the House would take the pains to examine the old charter and compare it with this, he would not have the hardihood to get up on this floor and state that there are no changes. We have all received letters concerning this bill, and the letters which I received are based upon the ground that the charter should be changed in order to give to the board of trustees complete control over the investment of the permanent fund. There is a change that is admitted by the proponents of the bill. Now, Mr. Speaker, there is absolutely nothing that may be secured by this bill that can not be secured by an amendment of the existing articles of incorporation. The statements made by the gentlemen who are in charge of this bill, though made in good faith no doubt, are misleading in the extreme.

Mr. Webb—Mr. Speaker, will the gentleman permit an interruption?

Mr. Sullivan of Massachusetts—Not just now; later on. Why, I had to smile when the gentleman from New York [Mr. Southwick] blandly stated that the primary object of this bill was to change the title, to give the association the prestige of the name of the National Education Association of the United States. There was no need to bring a bill before Congress in order to change that title. They could change that title under existing laws.

But let me give the House a little history of this bill. In the first place, there was a movement to prolong the life of the association. It was chartered as a corporation under the laws of the District of Columbia for twenty years. Those twenty years expired on the 26th day of February last. Therefore the members of the association, in meeting assembled, empowered the directors to recommend such changes as were necessary—now, mark the words “as were necessary”—and for what? To continue the life of the existing association. In the original authorization there was not the delegation of a single power beyond that one—namely, to prolong the life of this association. The bill was brought before this body. It was subjected to the usual delays. The 26th of February passed. The charter was not granted by Congress, and the corporation then did all that it needs for its protection

—namely, filed with the District of Columbia a certificate extending their articles of incorporation. They may go on for twenty years longer. They may change their title so as to obtain the title which they have by this act of Congress. They may change their charter if they please. They may change their constitution. They may change their by-laws by calling a meeting of the members of this association in a democratic way and submitting proposed changes to those members and then allowing the majority to rule. But the object of this bill is to prevent a majority from ruling. Who are the members of the National Educational Association of the United States? President Eliot alone? President Nicholas Murray Butler alone? Not at all. They are made up of the rank and file of the teachers, male and female, of these United States, those who are charged with the responsible duty of educating the youth of the land. Who puts up the money for this corporation?

Mr. Tawney—Mr. Speaker, will the gentleman permit an interruption?

Mr. Sullivan of Massachusetts—Not now. Who puts up the money? The college presidents? Not at all. The teachers of the United States put up practically every dollar that goes into the coffers of this association.

Mr. Tawney—Now will the gentleman yield?

Mr. Sullivan of Massachusetts—I will not yield until later, when I will indicate a readiness to do so. Later on I will yield. Now, the money that furnishes the bone and sinew of the corporation is collected from the dues of the tens of thousands of teachers of the United States. It is true there are donations from philanthropic persons, but they do not make up the bulk of the money that is in the treasury of this corporation. Mr. Speaker, it is now proposed to vest in the board of trustees practically absolute power over the affairs of this corporation. They have practically absolute control over the expenditure of the permanent fund and of the current funds. They are directed to place all surplus funds, except \$500 a year, in this permanent fund. The people who compose this association, if this charter goes through, will not have the power to direct the expenditure of one single dollar of the funds to which they contribute. The entire fund is placed in absolute control of the board of directors and the trustees of this national educational trust, for that is just exactly what this is, Mr. Speaker. Now, they say there are no changes. Why, the very body, the principal constituent of this corporation, was the National Council of Education. Now, under the old charter that National Council of Education was a department of the main body, subject to the rules of the main body, subject to the control of the voting members of that body in meeting assembled. This proposed charter takes the National Council of Education out of the control of the national body and practically makes it an independent body. It is no longer under this charter a department of the National Education Association.

Mr. Williams—Will the gentleman yield?

Mr. Sullivan of Massachusetts—In just two or three minutes.

Mr. Williams—I was going to add this: Not only an independent body but a self-perpetuating body.

Mr. Sullivan of Massachusetts—Precisely. Now, Mr. Speaker, five hours' argument will not make the proposition plainer that in the hands of these five trustees are to be placed the moneys of the teachers of the United States and the control in a large measure of the progress of education itself in the United States. How may it affect education, some Member may ask? Let me tell you the powers of the national council under this charter. The national council shall have for its object the consideration and discussion of educational questions of public and professional interest. Now, what does that power mean, gentlemen? It means that the discussion of the leading educational questions before the country will be confined practically to the channel which the national council of education prescribes. Now take the next power. It shall also decide suitable subjects for investigation and research and a recommendation of the amount of appropriations that should be made for such purposes. Not only will they determine the scope of the discussion of questions relating to education, but if research must be made they have the power to give or withhold appropriations in the execution of that design. What else? The appointment and general supervision of such special committees of investigation as may be provided for and authorized by the board of trustees of the association, and furthermore the power of disposition of all reports by such special committees of research and the annual preparation and presentation to the association at its annual convention of the report on educational progress during the past year.

What does that mean? The report of a national educational association submitted every year is a guide to the teachers all over these United States for their reading, their discussion, their study in the ensuing year, and this board has absolute power to determine what shall go into that report and what shall not go into that report; what may be discussed at its meetings and what may not be discussed at its meetings; what subjects may be investigated and what subjects shall be excluded from investigation. Now, those are the powers, and the board of trustees, as I have stated, have almost complete power over the disposal of the funds of this association. If any members of that association at its annual meeting would like to have some money, their own money, expended in a particular way, I say to you Members of this House they are powerless to do so under the charter which you propose to thrust upon the teachers of the United States. Oh, I know the teachers are voiceless; they have no heads of colleges to speak for them; they have no presidents of universities to lend the prestige of their great names to influence the judgment and action of Members of this House. They are voiceless because they live on salaries; they are dependent upon the good will of the superintendents of education over this land, of the supervisors, who are controlled by the leading educators, and while a great many of them protest against this charter they do it silently. They dare not do it publicly for fear of incurring the displeasure of the men who sit in power and judgment over them, the supervisors and superintendents of education in the several cities and towns of the land.

Mr. Webb—Will the gentleman permit an interruption in that connection?

Mr. Sullivan of Massachusetts—Not just now ; later I will. Mr. Speaker, may I ask how much time I have remaining ? I want to leave some time to answer queries.

The Speaker—The gentleman has eight minutes remaining.

Mr. Sullivan of Massachusetts—Mr. Speaker, I will ask that I be kindly informed when I have four minutes left, as I desire to reserve that time for inquiries.

Now, how is this board of trustees chosen ? Why, gentlemen, when you think of the tremendous powers that are to be exercised by such a board—practically absolute powers—you would conclude at once that they were selected in some manner which would make them truly representative of the main body. You would suppose that they were fairly representative of the members of the association, and that they were selected by democratic methods ; but precisely the opposite is the fact in this case. I will find here in a few moments how these trustees are chosen.

The board of trustees—

Now, mark this, gentlemen, because it is an extremely important matter, and I fear that some gentlemen may be influenced in their judgment by the magic of the great names which have been paraded before the House ; so that it becomes important to have a statement of facts to know the character of the bill that we are passing upon.

The board of trustees shall consist of four members, elected by the board of directors for the term of four years, and the president of the association—

Not elected by the association, but by the board of directors, for the term of four years—

and the president of the association, by virtue of his office, shall make the fifth member.

That is, the board of trustees, not selected in any democratic way, not by any fair rule of selecting representative agents, but by the action of the board of directors alone. Can you devise, can ingenuity devise, a better means of perpetuating control of the funds of the teachers of the United States or the business which will come before them for discussion and action ?

Now, Mr. Speaker, the board of directors is a well-intrenched body, too. You would expect that the board of directors, which has the selection of the governing agents of the association, namely, the board of trustees, would at least be controlled by the association ; but it is not under this charter. Why ? Because it is loaded up with the deadwood of the past ; because there are provisions in this bill which make directors for life of certain gentlemen who are named in the bill.

The Speaker—The gentleman's four minutes have arrived.

Mr. Sullivan of Massachusetts—Under this bill the board of directors shall consist of a president, the first vice-president, the secretary, the treasurer, the chairman of the board of trustees (who, by the way, as a member of the board of directors helps elect himself a trustee), and of all life directors of the National Educational Association.

Then, the United States Commissioner of Education is made a member, "and all former presidents of the association" now living are made members "and all future presidents of the association." So that there will always be a body of old directors, sufficient in number to control the action of the board of directors. Remember that; and that the board of directors, which is not truly representative, selects four of the five trustees, who are also not representative, but who control the expenditure of every dollar of the funds and practically the exercise of every function of the association. Now, I will yield to the gentleman from North Carolina.

Mr. Webb—Is the copy of the bill the gentleman is reading from the present bill?

Mr. Sullivan of Massachusetts—It is.

Mr. Webb—Does he not know that it is an exact copy of the charter of the association, under which they have been operating for twenty years? We refer to it because the board of directors are given power to select the board of trustees.

Mr. Sullivan of Massachusetts—The board of trustees are given new powers under this charter, and the gentleman from North Carolina knows it. He knows that the board of trustees is given power that it has never before had, which gives them control of the permanent funds of the association.

Mr. Fitzgerald—What is the permanent fund of the association?

Mr. Sullivan of Massachusetts—It is made up of all donations, together with accretions from time to time, and all savings from current funds. The current funds are made up principally from the general membership fees and dues of teachers of the United States.

Mr. Fitzgerald—Does the gentleman know what it amounts to at the present time?

Mr. Ryan and Mr. Webb rose.

The Speaker—To whom does the gentleman yield?

Mr. Sullivan of Massachusetts—I yield to the gentleman from New York [Mr. Ryan].

Mr. Ryan—I have received information that there is some \$150,000 at present in the fund. Under this bill, if it is enacted into law and this incorporation granted, will this new board of trustees have control over the expenditure of that money?

Mr. Sullivan of Massachusetts—Yes. They will have more power than they now have. Now, Mr. Speaker, I will go on a little further.

Mr. Webb—I should like to interrupt the gentleman right on this point.

The Speaker—Does the gentleman yield?

Mr. Sullivan of Massachusetts—In a moment. One of the reasons for objecting to this charter is this: That to-day any book agent or the agent of any publisher may be a voting member of this association. This association has the power to discuss courses of study. Their suggestions are frequently followed in the United States, so that indirectly they have the power to direct what books shall be used in the public schools; and a few years ago the Boston agent of the American Book Company was the presi-

dent of the National Council of Education. There is a power—one which gentlemen may pay some attention to—that is significant in the extreme.

Mr. Tawney—Will the gentleman permit an interruption?

Mr. Sullivan of Massachusetts—I will.

Mr. Tawney—You stated a moment ago in reply to the gentleman from New York that the board of trustees had complete control over the expenditure of this fund. Now, I will ask the gentleman if this is not the fact, that they do not have any control over the expenditure of the permanent fund, but only over the expenditure of the income?

Mr. Sullivan of Massachusetts—Will the gentleman find it for me in the bill, if he is so sure?

Mr. Webb—I will find it.

Mr. Tawney—The member of the committee in the rear of the gentleman from Massachusetts [Mr. Webb] can point to the particular paragraph.

Mr. Webb—It requires two-thirds of the active members to vote for it before one penny of it shall be expended.

Mr. Sullivan of Massachusetts—I did not say anything different from that.

Mr. Webb—Oh, yes.

Mr. Tawney—You said that the permanent fund would be expended by the trustees.

Mr. Sullivan of Massachusetts—Mr. Speaker, I insist that I was right. I say that the association has no power to decide what expenditures shall be made. When the directors recommend to the trustees the expenditure of part of the principal of the permanent fund it is then that the members have the power, by a two-thirds vote of those present, to sanction that precise expenditure, but neither two-thirds nor four-fifths nor nine-tenths nor all the members of the association except these chosen few have the power to originate any scheme for the expenditure of a single dollar of the fund.

I insert as a part of my remarks section 7 of the bill, which proves that the members have no power whatever to direct how their money shall be spent, but only the power to accept or reject the particular plan proposed by the trustees. It shows also that the members have not even the power of ratification or rejection of expenditures of income.

SEC. 7. That the invested fund now known as the "Permanent fund of the National Educational Association," when transferred to the corporation hereby created, shall be held by such corporation as a permanent fund and shall be *in charge of the board of trustees, who shall provide for the safe-keeping and investment of such fund, and of all other funds which the corporation may receive by donation, bequest, or devise.* No part of the principal of such permanent fund or its accretions shall be expended, except by a two-thirds vote of the active members of the association, *present at any annual meeting, upon the recommendation of the board of trustees, after such recommendation has been approved by vote of the board of directors,* and after printed notice of the proposed expenditure has been mailed to all active members of the association. The income of the permanent fund shall be used only to meet the cost of maintaining the organization of the association and of publishing its annual volume of proceedings, unless the terms of the donation, bequest, or devise shall otherwise specify, or the board of directors shall otherwise order. It shall also be the duty of the board of trustees to issue orders on the treasurer for the payment of all bills approved by the board of directors, or by the president and secretary of the association acting under the authority of the board of directors. When practicable, the board of trustees shall invest, as part of the permanent fund, all surplus funds exceeding \$500 that shall remain in the hands of the treasurer after paying the expenses of the association for the previous year, and providing for the fixed expenses and for all appropriations made by the board of directors for the ensuing year.

The board of trustees shall elect the secretary of the association, who shall also be secretary of the executive committee, and shall fix the compensation and the term of his office for a period not to exceed four years.

The Speaker—The gentleman from New York has seven minutes remaining.

Mr. Southwick—Mr. Speaker, I yield four minutes to the gentleman from Arkansas [Mr. Floyd].

Mr. Floyd—Mr. Speaker, the gentleman from Massachusetts has made a vigorous assault on this bill. In the limited time that I have I desire to explain the bill as I understand it and to answer some of the questions that have been asked by Members of this House.

In the first place, this is not a general Federal corporation, but is a corporation of the District of Columbia. This will be found in lines 15, 16, and 17, which read as follows:

And such other persons as now are or may hereafter be associated with them as officers or members of said association are hereby incorporated and declared to be a body corporate of the District of Columbia.

Mr. Padgett—Will the gentleman yield for a question?

Mr. Floyd—Yes.

Mr. Padgett—Are they limited to the transaction of business in the District of Columbia?

Mr. Floyd—As far as their corporate existence is concerned they are limited just like any other District of Columbia corporation.

Mr. Padgett—Limited in their name?

Mr. Floyd—No, in their functions; just the same as any other District of Columbia corporation incorporated under the general laws of the District of Columbia. They have just that much power, and no more.

Mr. Padgett—Yes; exactly so. They have the power to go anywhere.

Mr. Floyd—Now, in regard to another objection made by the distinguished gentleman from Massachusetts, he insists that the board of trustees have power over this permanent fund. I desire to submit that the funds are safeguarded better under this incorporation than they are under the original charter obtained under the general incorporation law of the District of Columbia, for in section 6, beginning with line 24, it is provided—

No part of the principal of such permanent fund or its accretions shall be expended except by a two-thirds vote of the active members of the association *present at any annual meeting, upon the recommendation of the board of trustees, after such recommendation has been approved by vote of the board of directors, and after printed notice of the proposed expenditure has been mailed to all active members of the association.*

Mr. Williams—Mr. Speaker, I want to ask the gentleman why it was that this charter was not procured in the regular way under the general law for incorporation in the District of Columbia, if there is nothing in it except a District of Columbia charter?

Mr. Floyd—In answer to that question I will say that I know nothing as to the motives, except at the last annual meeting of the National Educational Association, at Chicago, they brought up the proposition before that meeting, where there were over 400 delegates, to submit this charter to Congress and ask Congress to pass it. That was voted upon and carried by a large majority. Then the friends of the movement came before our committee and submitted this bill. We modified and changed the bill very much in form. Originally it was a general Federal corporation, and we

changed it and made it a corporation of the District of Columbia. It gave the National Council of Education enlarged powers, and we changed and limited the National Council of Education so as to make it subject to control the same as the other departments named. We modified the bill in such a way that we considered there was no objection to it.

In that connection I will say that many educators throughout the land—superintendents of public instruction—almost overwhelmed the committee with letters and telegrams asking us to pass this bill. The opposition all came from Chicago. One lady, who is a teacher in Chicago, protested against it, and asked to be heard. We permitted her to come before the committee and gave a hearing lasting two hours, heard all the objections she urged, and amended the bill to meet valid objections, and if there are any objections besides what she made they have not reached my ears, until the gentleman from Massachusetts [Mr. Sullivan] on the floor of the House opposed the passage of the bill.

Mr. Southwick—Mr. Speaker, I yield two minutes to the gentleman from Minnesota.

Mr. Sullivan of Massachusetts—Will the gentleman let me ask him a question in reply to the one that was asked me as to the control of the funds?

Mr. Tawney—I can not yield in the short time I have.

Mr. Sullivan of Massachusetts—I have no more time.

Mr. Tawney—I can not yield. I want to say a word. I think the gentleman from Massachusetts is unnecessarily wrought up about the provisions of this bill. He insinuates that the men at the head of the organization through this bill seek an unfair advantage of the less prominent members. He speaks about the permanent fund that has been accumulated from the contributions paid by the teachers of the United States belonging to this organization. The gentleman says that under the provisions of this bill that fund may be disposed of at any time by the board of trustees. This is the mere assertion, sir, of the gentleman from Massachusetts [Mr. Sullivan]. It is not founded in fact. One of the primary objects of this bill is to protect this fund and to make it a permanent fund, a fund that can not be encroached upon or disposed of by any member or officer of the organization for any purpose whatsoever.

Mr. Goldfogle—Mr. Speaker—

Mr. Tawney—I decline to yield. No man who has read the bill can say that that is not a fact. The only part of the fund that can be disposed of in the discretion of the trustees or other officers of the organization is the accumulations resulting from the investment of this fund, and that can be expended only for purposes authorized by this association.

Mr. Sullivan of Massachusetts—Oh, the gentleman knows that he is mistaken about that.

Mr. Tawney—The purpose is, I repeat, to protect the fund and to encourage not only members of the organization, but to encourage men of means interested in the work of this organization to contribute to this fund, thus enabling the organization to carry on the important work it is engaged

in. This will be accomplished, Mr. Speaker, by the enactment of this bill, making it impossible for those who in the future may control the organization from in any way interfering with or disposing of this fund without first securing an act of Congress authorizing it. This question was carefully considered at the last annual meeting of the National Educational Association at Asbury Park. At that meeting last summer this matter was discussed and acted upon by more than 800 teachers. Eight hundred of whom acted in favor of reincorporation upon the terms of this bill, and only 15 voted against it. This organization has a membership of more than 15,000, and the infinitesimal number opposed to this reorganization now seek through the gentleman from Massachusetts, the home of education, to prevent the accomplishment of that which is deemed essential to its future growth and increased usefulness.

Mr. Speaker, the secretary of the National Educational Association, Mr. Irwin Shepard, is my neighbor and personal friend. He has devoted the best part of his life to the upbuilding of this organization. He took hold of that work when the organization was in its infancy, and has built up a national educational institution which is not only the pride of every American interested in national education but an educational organization unexcelled by any nation in the world. I may be pardoned, therefore, if I resent, to some extent, the insinuation of the gentleman from Massachusetts [Mr. Sullivan] that the men behind this bill are actuated by selfish or improper motives, or that they have any intention or desire to take advantage of any member of the association however humble that member may be.

Mr. Butler of Pennsylvania—Were the provisions of this bill discussed at the meeting referred to by the gentleman from Minnesota?

Mr. Tawney—The identical provisions in the bill were discussed and adopted. The constitution and by-laws under which the association has existed for twenty years are incorporated in this bill, with the added security to the permanent fund.

Mr. Williams—It did not exist for twenty years under the authority of Congress, by a charter of Congress.

Mr. Tawney—Oh, yes. The law under which the association was incorporated was enacted by Congress.

Mr. Williams—Why didn't they go to New York?

Mr. Southwick—Mr. Speaker, I now yield thirty seconds to the gentleman from Pennsylvania [Mr. Butler].

Mr. Butler of Pennsylvania—Mr. Speaker, the class of teachers for whom the gentleman from Massachusetts speaks—the common-school teachers—have sent requests here by the thousands in favor of this bill. My constituents visited this meeting spoken of by the gentleman from Minnesota, and there they understood the purpose of this bill, because they discussed and heard it discussed, and returning, made their wishes known to Congress and the Members of this House. While I know but little about the different provisions of the bill—and if I did, have not the opportunity to discuss them—these intelligent people who have memorialized Congress

should have their express wishes complied with, and I shall vote for their bill and am gratified to have the chance

Mr. Southwick—Mr. Speaker, I admire the chivalry and eloquence of the gentleman from Massachusetts. He stands up here on the floor of the House as the sole opponent of this bill. He is eloquent, we will all admit, and chivalrous because he stands up here representing the lady who was the only opponent of the bill before the Committee on Education. We devoted five hearings to this bill, all differences were reconciled and harmonized, and this bill comes before the House with the unanimous report from the Committee on Education.

Mr. Sullivan of Massachusetts—Mr. Speaker, I ask unanimous consent that debate may extend ten minutes longer. I believe there has been a great deal of misrepresentation in regard to the provisions of this bill.

The Speaker—The gentleman from Massachusetts asks unanimous consent that the debate be extended for ten minutes. Is there objection?

Mr. Graham—I object. The gentleman took ten minutes' time for an explanation and wouldn't answer a question.

Mr. Sullivan of Massachusetts—Mr. Speaker, I ask unanimous consent for sufficient time to read section 7, which exposes the power of the board of trustees, and surely the gentleman will not object to that proposition.

The Speaker—The gentleman is not in order.

Mr. Sullivan of Massachusetts—I ask unanimous consent to proceed for five minutes.

The Speaker—The gentleman from Massachusetts asks unanimous consent to address the House for five minutes. Is there objection?

Mr. Graham—I object, Mr. Speaker, the gentleman would not reply when we asked him questions.

Mr. Williams—I call for the regular order, Mr. Speaker. The gentleman from Pennsylvania has a right to object, but not to speak on his objection.

The Speaker—The question is on the motion of the gentleman from New York to suspend the rules, agree to the amendments, and pass the bill as amended.

The question was taken, and on a division (demanded by Mr. Sullivan of Massachusetts) there were—ayes 140, noes 37.

Mr. Williams—Mr. Speaker, I call for the yeas and nays.

The Speaker—The gentleman from Mississippi demands the yeas and nays. As many as are in favor of ordering the yeas and nays will rise and stand until counted. [After counting.] Thirty-one gentlemen have arisen, not a sufficient number, and the yeas and nays are refused.

So (two-thirds having voted in favor thereof) the rules were suspended and the bill was passed.

EXTENSION OF REMARKS

Mr. Southwick—Mr. Speaker, I ask unanimous consent that Members be allowed to extend their remarks in the *Record* on the bill (H. R. 10501) to incorporate the National Education Association of the United States.

The Speaker—The gentleman from New York asks unanimous consent that Members may extend their remarks on the bill to incorporate the National Education Association of the United States. Is there objection?

Mr. Sullivan of Massachusetts—Mr. Speaker, reserving the right to object, why does the gentleman want to have Members extend their remarks on this bill?

Mr. Southwick—There were some Members of the committee who could not secure time to speak who were anxious to speak.

Mr. Sullivan of Massachusetts—Simply to present the views of the committee?

Mr. Southwick—To present their individual views.

Mr. Sullivan of Massachusetts—I have no objection.

The Speaker—Is there objection?

Mr. Williams—Mr. Speaker, I object.

The Speaker—The gentleman from Mississippi objects.

(From the *Congressional Record* of April 12, 1906)

The House, being in the Committee of the Whole on the State of the Union, and having under consideration the post-office appropriation bill—

Mr. Smith of Maryland—Mr. Chairman, when the subject of incorporating the National Educational Association was before this House a few days ago, I did not have an opportunity to say a word upon the subject, and as a member of the Committee on Education who carefully considered and cordially supported the measure in committee, I feel that I would be derelict in my duty, not only to the other members of the committee, but to the cause of education, if I remained altogether silent upon this, a subject in which I have always been deeply interested. Not only so, but I do not feel that I would be doing justice to my constituents nor to the State of Maryland, which I have the honor in part to represent.

The superintendent of public education in the State of Maryland, Dr. Martin Bates Stephens, speaking for the teachers of that great Commonwealth, strongly recommended and advocated the passage of this measure, and vouches for the correctness of the statement that the vast majority of the active members of the National Educational Association most heartily indorse the rechartering of the association as outlined by this bill. I will further state that Doctor Stephens has risen from the ranks of the country school teachers to the prominent position he now holds in the State and nation as a successful educator, and hence his advocacy—in the State of Maryland, at least—of measures along educational lines is given great weight. I have here a letter from Doctor Stephens and also one from the superintendent of public schools in Baltimore City, Dr. James H. Van Sickle, which, with the permission of the Chair and the House, I will print in the *Record* with my remarks.

The letters referred to are as follows :

STATE OF MARYLAND,
DEPARTMENT OF PUBLIC EDUCATION,
OFFICE OF THE STATE BOARD OF EDUCATION,
Annapolis February 10, 1906.

Hon. THOMAS A. SMITH, M. C.
Washington, D. C.

MY DEAR MR. SMITH I write to you in the interest of the bill now before the House of Representatives asking for an extension of the charter of the National Educational Association. For six years I have served as a director of this association for the State of Maryland, and as such I have enjoyed good opportunities to study its management and policy. It has grown to be the greatest educational association in the world, and because of its national character and work I think it is entirely appropriate for the extension of its charter to be made by Congress. The membership of the National Educational Association has reached as high as 35,000, and includes nearly all the wide-awake educators and school supervisors of the United States, not to speak of school principals and teachers. It has given purpose to public education, and through the influences of this organized body order has come out of chaos, and the American school system is taking higher rank every year at home and abroad. Through the standing committees of this association every phase of education has been enriched, and the whole movement toward the essentials of uniformity received its impetus from the work of these committees.

It is true that the same men who formulated the policy of this association are still the guiding spirits in the deliberations of this body, but why should they not be? Who could have done the work better? No one can think of the history of this great organization of teachers without thinking of Commissioner W. T. Harris, Dr. Nicholas Murray Butler, Albert G. Lane, John W. Cook, F. Louis Soldan, J. M. Greenwood, and others—the two are inseparable. But under such able leadership and good management the splendid results of the National Educational Association are our heritage, and in my opinion the indorsement which the extension of the charter by Congress would imply is richly deserved and should be given to the men who are still controlling its affairs and who, so far as I know, have never abused a trust or proved derelict to a duty committed to them.

I hope you will see your way clear to vote for the bill. Its passage means a continuation of the good work so nobly begun.

I am, yours, very truly,

M. BATES STEPHENS

BALTIMORE PUBLIC SCHOOLS, *February 15 1906*

Hon. THOMAS A. SMITH, *Washington, D. C.*

DEAR SIR: The charter of the National Educational Association expires by limitation on February 24, 1906. The bill for rechartering the association, known as H. R. 10501 is in the judgment of a great majority of the members of the association, one that ought to receive the support of Congress. I, personally, believe it to be a good bill.

Trusting that it may receive your support, I am,

Yours, very respectfully,

J. H. VAN SICKLE

Mr. Smith of Maryland—Now, Mr. Chairman, it is claimed by a small minority of the active members of the association that the words "United States" should not be added to the name of this National Educational Association, and that it should not have a national character, because progress and advancement have been made under the old name. I am inclined to the opinion that there is not much in a name, except as the acts of the individual or individuals make the name honorable and exalted, and while I have heard a great deal said during the last few months about the dishonor attached to the names of some individuals, legislative and business bodies of the United States of America, I am still inclined to think there is yet enough true manhood and statesmanship in this country to make the addition of the words "United States" an honorable and exalted appendage to the name of any society of this country; and, in fact, the more efficient and honorably conspicuous the society or organization, the more fitting and appropriate the addition of the words that still carry with them the pride and glory of the nation. It was contended by a few persons who came before the Committee on Education that this bill took away from the active members of the association the right of the initiative of the control and expenditure of the funds of this association. Why, Mr.

Chairman, there is not a business man or member of this House but who knows and understands that every successful business institution anywhere in this country is represented by directorates executive boards, etc., to regulate and govern its affairs.

It would be practically impossible to accomplish anything without gathering responsibility into capable executive hands. Stockholders elect directors, directors their officers and executive boards, and as they show inefficiency or dishonor they are relegated to the rear and new directorates are formed.

Why, sir, in a large body like the National Educational Association there must be concentration into the hands of executive committees. At the Ocean Grove meeting of the association there were 20,000 members present, and in Boston, Mass., the association numbered about 35,000. Imagine this House of 386 Members attempting to do business without stringent rules and standing committees, if you please, and the result would be pandemonium would reign. Now, if you please, bring into the House the 80,000,000 active and associate members of this country and where would we be? Why, Mr. Chairman the very foundation of the Government of this country is based upon similar principles to those of the association of which I am speaking. The House of Representatives, for instance, is supposed to be the initiator of expenditures the Senate concurring or nonconcurring, and if the active members—the voters—disapprove our action they delegate at the polls a new directorate to be sent to Washington to administer public affairs according to the will of the people, and I have no doubt the active members of the National Education Association of the United States will do the same with their directorate if necessity arises. I regard this measure as a progressive measure in the right direction, and hope the Senate will pass it as it went from this House.

IX

REVIEWS

Galdos's *Dona Perfecta*—Edited by EDWIN S. LEWIS. New York : American Book Company. 377 p. \$1.00.

Alarcon's *El Nino de la bola*—Edited by RUDOLPH SCHEVILL. New York : American Book Company. 278 p. 90 cents.

To those interested in Spanish literature the announcement of two annotated novels published in this country and easily obtainable will be welcome news. Both the novels in question are recognized masterpieces. They are Galdós's *Doña Perfecta*, due to the editorial care of Edwin Seelye Lewis, Ph. D., and Alarcón's *El Niño de la bola*, whose editor is Rudolph Schevill. Both are from the press of the American Book Company, and are provided with careful vocabularies in addition to the notes and introductions.

There was already in the field an excellent edition of *Doña Perfecta*, with an admirable introduction sketching the history of the Spanish novel. It was edited by A. R. Marsh and published by Ginn & Company. But with all its good features, it left untouched the chief difficulty of the average student, *i. e.*, the vocabulary, which in Galdós is, as Professor Lewis remarks, extremely rich. It is to fill this need that Professor Lewis has bent his energies, and with success. The notes, if less interesting than those of Professor Marsh, are on the whole more helpful to the average student. The text of the novel has been published intact.

In the introduction to *El Niño de la bola*, Professor Schevill presents succinctly the main facts concerning the novel in hand, and the author's life. The novel itself is divided into four books and an epilog. The first three books Professor Schevill has published intact. The fourth book and epilog are almost as long, in the original edition, as the first three books taken together. Professor Schevill has deemed it necessary, and I think wisely, to cut out certain digressions in this part of the

work, so as to bring it within the limits of size for classroom use. As Professor Schevill says, all abridgment is dangerous, and must always be determined by the personal equation. On the whole I believe that Professor Schevill has done this delicate work very well, especially as he gives good synopses of the chapters omitted; but I cannot help regretting the absence of the eighteen pages of chapter five in the fourth book (where the author gives us the description of Manuel's "terrible inner conflict") which I consider one of the strongest, most beautiful, and most touching passages in the whole work. There is one serious criticism that I have to address to the editor. Aside from the chapters which are omitted and of which synopses are given, there are twenty-two omissions, aggregating sixteen pages, that are not indicated at all by points of suspension. I have no objection to make to the omissions themselves, but it does not seem to me that to change an author's text without indicating each and every omission is a good principle to work on. The notes and vocabulary of Professor Schevill's edition are admirable.

JOHN D. FITZ-GERALD

COLUMBIA UNIVERSITY

How nature-study should be taught—By EDWARD F. BIGELOW. New York: Hinds, Noble and Eldredge, 1904. 203 p. \$1 00.

This new contribution to the nature-study movement is by the well-known editor of "Nature and science for young folks" in *St. Nicholas*. It is not a formal guide with outlines of courses and lesson plans, nor is it a compendium of facts to be taught to the pupils. On the contrary the book consists of a series of twenty-five more or less informal talks to teachers and intended to encourage, inspire, and suggest.

The author's interpretation of nature-study is well expressed in the following quotations: "It is nothing more nor less than taking an intelligent interest in the earth and its products." . . . "Nature-study is the creating and the increasing of a loving acquaintance with nature." That teaching nature-study should not be the imparting of knowledge concerning nature is the central idea of the book. Scientific

facts and methods belong to science; "love," æsthetic appreciation and admiration of natural things, are fundamental in nature-study.

Concerning correlation of nature-study with every possible subject the author gives this good advice: "Be sure that you know what is nature-study, and which is the drawing and language, and just wherein is the correlation." "There is danger of correlating nature-study until it is annihilated."

In the chapter on schedules in nature-study, the author takes a decided stand against "assigning work in advance." But like others who have urged the informal method of nature-study, the author fails to tell us what we are to do with teachers who are not walking encyclopedias of natural history ready to conduct lessons, without preparation, on any of the ten thousand things which the children may suggest, or how we can regulate a graded school with a dozen teachers. Better advice would be: Have reasonable schedules for regular work, so that the teacher may in advance make the necessary preparation in facts and method and materials. But this does not require that teachers should fail to encourage the spontaneous interests of their pupils.

The chapters on the microscope in nature-study, nature-study in the autumn, school-gardens, books and nature, and tests in proficiency in nature-study, contain many valuable suggestions which must win the reader's hearty approval. The book thruout contains an abundance of good sensible ideas, and it deserves reading by every educator who is specially interested in nature-study.

M. A. BIGELOW

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

X

NOTES AND NEWS

Association of American Universities. The Association of American Universities for the first time in its history met this year on the Pacific coast, San Francisco and the two California universities sharing in its four days' session. Ten of the fifteen members of the Association were represented by delegates, among whom were the Presidents of the University of Wisconsin (the President of the Association for the current year), of Johns Hopkins, of the University of California, and of Leland Stanford. At the first session, on March 14, papers were read by President Wheeler of the University of California and Professor William James of Harvard on the "Interchange of professors in universities." President Wheeler's paper was a brief for the preservation by the universities, and particularly by the colleges, of their own characteristic individuality and their complete autonomy. It is to the interest of the country, it was asserted, that each institution should maintain a character of its own, true to its historic traditions and adjusted to the work each has at its doors. A college full of migratory teachers will be a colorless college, but a limited interchange based upon individual agreement is plainly of advantage. The paper also considered the desirability of an interchange of the members of the corps of instruction thru migration between the different institutions. It is particularly the younger men, according to the writer, who should have the opportunity of teaching in more than one institution and not alone men of established reputation, and as a rule a man should not be allowed to receive his three grades of advancement—instructor, assistant professor, and professor—at the same institution. Professor James considered specifically the Harvard interchange of professors with the University of Berlin, and described with some detail the

particular conditions that were met by the Harvard representative, Professor Peabody, in Berlin, and by Professor Ostwald in Cambridge. The system was commended as having fully realized, during the first year of its trial, the expectations of both institutions.

The second day's session was held at the University of California, at Berkeley. The papers presented were on the general subject, "To what extent should professors engaged in research be relieved from instruction?" and were prepared by President Jordan of Leland Stanford and President Hadley of Yale. President Jordan's paper, one of the best of the convocation, was a plea for the wider recognition of the needs of research work by the more liberal provision to the university instructor of necessary appliances, material, books, leisure, and freedom. Freedom, according to the paper, should be granted from cheap and sterile activity and, above all, from the makeshifts of poverty. This relief is far more needed than relief from teaching. The final end of university research is the vivifying of teaching. President Hadley's paper was printed in full in the April number of the *REVIEW*. It is a strong plea for greater freedom for those instructors, both young and old, who are capable of research work; the freedom from unnecessary burdens, and the provision of opportunity for independent investigation.

The session of the third day was held at Leland Stanford. The papers, by President Schurman of Cornell and Professor William H. Carpenter of Columbia, were on the "Reaction of graduate work on the other work of the university." President Schurman's paper considered the effect upon the undergraduate student of his close contact with the more thoroly equipped graduate student and the effect upon the instructor of his prosecution of graduate work. It was asserted that such contact between students affords a lesson to undergraduates in method and gives them a stimulus in the direction of independent development. Upon the professors themselves it has a beneficial result, in that it keeps them alive and fresh, and prevents them from growing stereotyped and rigid in their views. There should be, the writer maintained, a most intimate connection between the work of the under-

graduate and the graduate departments, and every instructor should give at least one course of advanced research work. Professor Carpenter's paper, on the same subject, which appeared in full in the April number of the *REVIEW*, arrived at the same general results. It was particularly based upon the observation of actual conditions at Columbia, where it was shown that the development of the graduate work of the university had meant a better development of the college, whose work it has both increased in quantity and intensified in quality.

The concluding session was held in San Francisco. The paper, on the "Organization of the American university, with especial reference to the changes in the conception of a 'Faculty,'" was presented by Professor Andrew F. West of Princeton,¹ who made a plea for the retention of older "Faculty" ideals and conditions, which are in danger, according to the writer, of being obscured and forgotten. The root of the old faculty was an ideal involving self-denial and devotion to the cause of knowledge and truth. Against this ideal the fiercely practical side of American life has been acting. The ideal of outward success has grown with material growth, and the business world and business method is invading the university world. The only business of a university, however, is education, and the realization of all that this implies in university administration must control, in order to save our faculties from being degraded from their old freedom into the condition of mere employees.

The papers of the convocation, as well as the informal discussion which they evoked, forcibly illustrated, what is continually more apparent in these meetings, the almost identical attitude of the large number of the representative institutions of the country toward the fundamental aspects of the higher education. As was pointed out in one of them, the precise application in detail of many of these principles to the practical administration of any given institution is largely a question of environment. There cannot readily be, for instance, on account of the historical development of the American universities and their varying conditions, in relation to the community, of

¹ This paper will appear in the *EDUCATIONAL REVIEW* for June.

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